Central Sydney (Bondi to Little Bay & Sydney Harbour)

State of the Beaches 2012–2013

Overall results

Percentage of sites graded as Good or Very Good:

73%	73%	70%	82%
2009–10	2010–11	2011–12	2012–13

Twenty eight of the 34 swimming sites were graded as Very Good or Good in 2012–2013, an improvement from previous years.

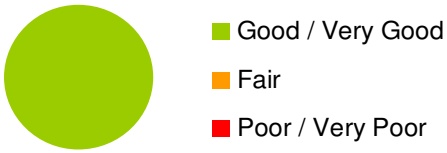
Malabar Beach

Malabar Beach has a long history of poor water quality and failure to meet swimming water quality guidelines. The source of the contamination was identified as the stormwater drain at the northern end of the beach which discharged after even light rain.

In 2012, Randwick City Council, Sydney Water and the NSW Government's Environmental Trust jointly funded a project to divert the stormwater further offshore, through the old cliff-face outfall at Malabar Wastewater Treatment Plant. The project was completed in November 2012 at a cost of nearly $2.2 million.

Since the diversion, the water quality at Malabar Beach has improved and enterococci levels now rarely exceed the safe swimming limit following light rainfall. The beach has now been upgraded from Poor to Good.

Ocean beaches



All nine ocean beaches were graded as Very Good or Good.

Maroubra Beach was graded as Very Good. The water quality at this site was of a very high standard and suitable for swimming almost all of the time.

Clovelly Beach was graded as Good. Water quality was generally excellent and enterococci levels rarely exceeded the safe swimming limit.

Bondi, Tamarama, Bronte, Coogee, South Maroubra, Malabar and Little Bay were also graded as Good. These sites were suitable for swimming during dry weather conditions, but elevated enterococci levels were often recorded following rainfall. Swimming should be avoided at these sites during and for up to one day following rainfall or when there are signs of stormwater pollution such as discoloured water or floating debris.

Best beaches

Maroubra Beach and **Nielsen Park**.

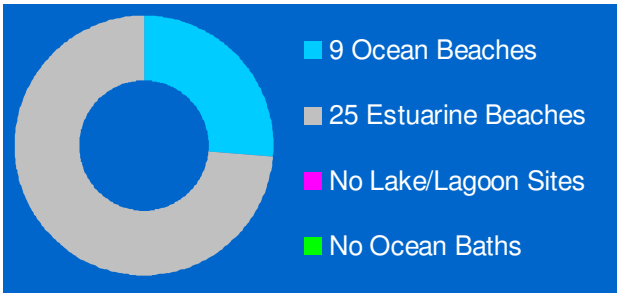
These sites had excellent water quality and were suitable for swimming almost all of the time.

34 sites

every 6 days*

1160 samples

year round*



* Beachwatch samples the ocean beaches every sixth day throughout the year, and the estuarine beaches every sixth day between October and April, and monthly from May to September.

Estuarine beaches

Nielsen Park in Sydney Harbour was graded as Very Good. This site had excellent water quality and was suitable for swimming almost all of the time. Elevated enterococci levels were occasionally recorded following heavy rainfall and swimming should be avoided at these times.

A further 18 of the 25 swimming locations in Sydney Harbour were graded as Good: Watsons Bay, Parsley Bay, Rose Bay Beach, Murray Rose Pool, Dawn Fraser Pool, Chiswick Baths, Cabarita Beach, Woodford Bay, Greenwich Baths, Hayes Street Beach, Clifton Gardens, Balmoral Baths, Edwards Beach, Chinamans Beach, Forty Baskets Pool, Fairlight Beach, Manly Cove and Little Manly Cove. These sites had mostly good water quality, although elevated enterococci levels were recorded following rainfall.

Two swimming locations were graded Fair: Woolwich Baths and Clontarf Pool. These sites had generally good water quality, but had more significant potential sources of microbial contamination.

Four swimming locations were graded as Poor: Tambourine Bay in the lower Lane Cove River; and Northbridge Baths, Davidson Reserve and Gurney Crescent Baths in the upper reaches of Middle Harbour. Although microbial water quality at these sites is generally suitable for swimming during dry weather conditions, elevated enterococci levels were frequently measured following light rainfall. These sites also have relatively low levels of tidal flushing.

As a precaution, swimming should be avoided at Sydney Harbour swimming sites during and for up to three days following rainfall or if there are signs of stormwater pollution such as discoloured water or floating debris.

Management

Ocean beaches

Sydney Water investigated wet weather sewage overflows in the Coogee Beach catchment and is undertaking routine de-silting of the grit pits at the southern end of the beach to reduce the occurrence of overflows.

Sydney Water has inspected, cleaned and repaired sewer mains that have a high likelihood of discharging sewage to waterways if they become blocked. When significant tree root intrusion to the public sewer from the private sewer was identified, property owners were requested to remedy the problem.

Gross pollutant traps have been installed in the Bondi Beach, Tamarama Beach, Bronte Beach, Clovelly Beach, Coogee Beach, Maroubra Beach and Malabar Beach catchments. Sydney Water operates two gross pollutant traps at Bondi Beach that prevent about 180 tonnes of sediment and floating debris from entering the waterway each year.

The Bronte Stormwater Harvesting Scheme collects and treats stormwater which is then re-used for toilets, park irrigation, ocean pool cleaning, and general cleaning of public places. The scheme saves over 15 million litres of water each year and reduces the volume of stormwater discharged to Bronte Beach.

The Bondi Stormwater Harvesting Scheme commenced in 2012 and supplies approximately 50 million litres of treated stormwater for park irrigation and toilets in Bondi Pavilion and South Bondi. An underground filtration system has also been installed to treat excess stormwater runoff from Campbell Parade, resulting in cleaner water at Bondi Beach.

Both Bronte and Bondi stormwater schemes were built by Waverley Council with support from the NSW Government's Climate Change Fund.

Randwick City Council operates a total of 14 stormwater recycling and treatment systems. The stormwater harvesting system from Clovelly Road and Donnellan Circuit has been upgraded with an additional recycling plant on the north side of Clovelly Beach to increase the volume of stormwater harvested. The treated water is used to irrigate Burrows Park, the landscaping along the Clovelly car park, and for toilet flushing in the amenities at Clovelly Beach.

Stormwater and groundwater is harvested at Pioneers Park. Approximately 20 million litres of water per year is treated and used to irrigate Pioneers Park, rather than being discharged into Malabar Beach.

The Commonwealth Government has commenced works on the northern boundary of Malabar Headland to improve water

quality at the southern end of Maroubra Beach.

North Sydney Harbour

The Northside Storage Tunnel was constructed by Sydney Water in 2000 and captures wet weather overflows from the four major overflow sites at Lane Cove, Quakers Hat Bay, Tunks Park and Scotts Creek. The tunnel has reduced the frequency of sewage overflows to less than 20 in an average 10-year period. Since the commissioning of the tunnel, about 67.5 billion litres of diluted sewage has been prevented from entering Sydney Harbour[1].

Sydney Water has constructed a new pumping station and transfer tunnel at Hayes Street Beach to reduce the incidence of wet weather sewage overflows in the catchment.

Sydney Water has inspected, cleaned and repaired sewer mains on the northern side of Port Jackson that have a high likelihood of discharging sewage to waterways if they become blocked. Where significant tree root intrusion to the public sewer from the private sewer was identified, property owners were requested to remedy the problem.

Sydney Water undertakes dry weather monitoring of main stormwater drains to identify sewer leaks. Leaks from public sewers are repaired by Sydney Water and leaks from private sewers are referred to local councils. Sydney Water is working with Manly Council to trial a more intense program to reduce leakage. Under this program, all stormwater drains discharging to beaches on North Harbour are being investigated.

Mosman Council's Botanic Road Stormwater Re-use Scheme is an underground storage system which captures stormwater and provides UV disinfection, after which it is pumped to Balmoral oval for irrigation.

Mosman Council has installed educational signage at beaches in the area advising not to swim up to three days after heavy rain due to the potential for pollution from stormwater. Stormwater quality improvement devices are installed at Balmoral Beach, Clifton Gardens, Edwards Beach and Chinamans Beach to capture sediment and floating debris. Council has also conducted stormwater education programs at Balmoral for school groups and has completed an audit and condition assessment of all stormwater assets to improve stormwater management.

Willoughby City Council has an ongoing stormwater drain stencilling program and has provided catchment awareness maps to residents in the Sailors Bay catchment, behind Northbridge Baths. The council has also improved stormwater outlets and undertaken erosion control to minimise nutrient load entering the harbour.

North Sydney Council's Stormwater Re-use Project aims to save 75 million litres of potable water (and reduce the amount of stormwater entering the waterways) each year by harvesting, treating and re-using stormwater for the irrigation of sports fields and recreational parks, including St Leonards Park, Cammeray Park, Forsyth Park, Primrose Park and Tunks Park.

South Sydney Harbour

City of Canada Bay maintains over 20 stormwater quality improvement devices which prevent over 80 tonnes of pollutants (sediments, leaves and litter) from reaching the Parramatta River each year. Stormwater harvesting, rainwater re-use and rain gardens have been constructed in the Drummoyne Oval precinct to reduce stormwater and pollutant loads reaching Five Dock Bay. A stormwater recycling system is soon to be constructed in Cintra Park to harvest and re-use stormwater for irrigation. This will reduce the City of Canada Bay's reliance on potable water and improve the quality of runoff into Canada Bay itself. Full operation is planned for early 2014.

Woollahra Council's Environmental and Infrastructure Levy funds a number of projects aimed at restoring ageing infrastructure and protecting the local environment. Projects include installation of stormwater quality improvement devices; upgrading infrastructure and gross pollutant traps; installing flow diversion structures to reduce sediment loads; bio-retention systems to remove contaminants from stormwater; porous paving infiltration systems; and harvesting stormwater for irrigation of sports fields and use in toilet facilities. Further stormwater management projects carried out by Woollahra Council include: water sensitive urban design at Bellevue Hill shops; a bio-retention system at O'Sullivan Road; dredging and installation of a stormwater litter boom at Double Bay; and stormwater pollution control devices for Rose Bay pipes.

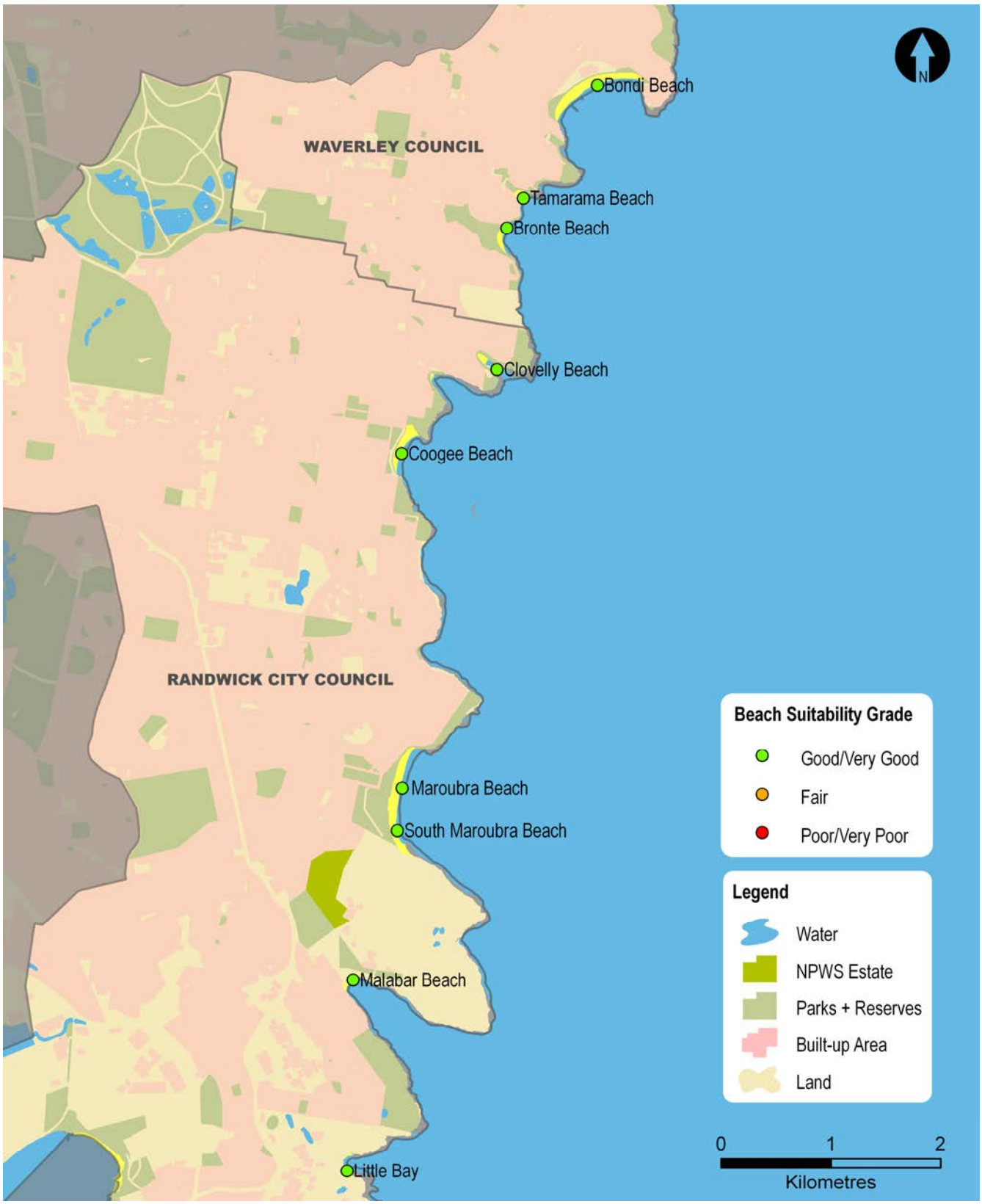
With funding from the NSW Environmental Trust, Woollahra Council has conducted works to restore the bushland within Cooper Park and improve water quality in the creek. Stormwater is harvested from Cooper Creek, stored in tanks, screened, and treated through UV disinfection. The stormwater harvesting system will be connected to an irrigation system during 2013 for irrigation of Cooper Park playing fields and will save on average 3.3 million litres of water each year.

Sydney Water operates a gross pollutant trap at Rose Bay Beach that prevents about 75 tonnes of sediment and floating

debris from entering the waterway each year. Sydney Water also operates a gross pollutant trap at Murray Rose Pool that prevents about 5 tonnes of sediment and floating debris from entering the waterway each year.

Sydney Water has inspected, cleaned and repaired sewer mains on about half of the southern side of Port Jackson that have a high likelihood of discharging sewage to waterways if they become blocked. Where significant tree root intrusion to the public sewer from the private sewer was identified, property owners were requested to remedy the problem.

[1] *Northside storage tunnel – Tunnel status*. Sydney Water, Parramatta, NSW. [Available at sydneywater.com.au/SW/water-the-environment/how-we-manage-sydney-s-water/wastewater-network/northside-storage-tunnel/tunnel-status/index.htm. Accessed on 03/07/13]



Sampling sites and Beach Suitability Grades at Sydney's Ocean Beaches

Sampling sites and Beach Suitability Grades in Sydney Harbour

Bondi Beach

Beach Suitability Grade: **Good**

See 'How to read this report' for key to map

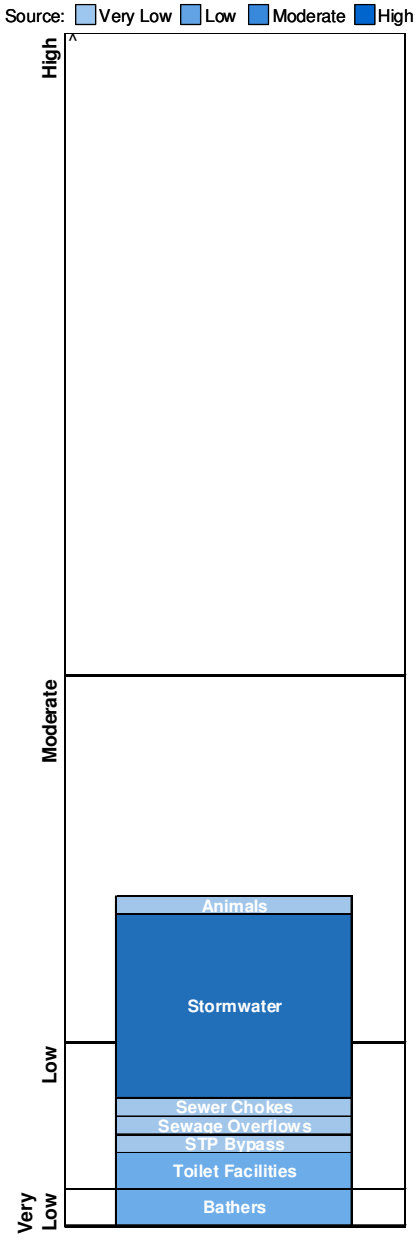
Bondi Beach is 800 metres long and backed by a promenade, car park and parklands. Beach conditions are safest at the northern end and lifeguards patrol the beach year round.

The Beach Suitability Grade of Good indicates that microbial water quality is suitable for swimming most of the time, but the water may be susceptible to pollution from several potential sources of faecal contamination including stormwater.

The response to rainfall graph indicates that enterococci levels increased with increasing rainfall, regularly exceeding the safe swimming limit in response to 5 mm of rainfall or more.

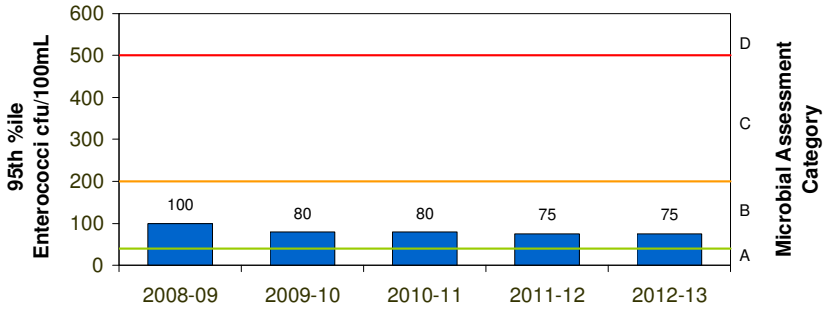
The site has been monitored since 1989.

Sanitary Inspection: **Moderate**



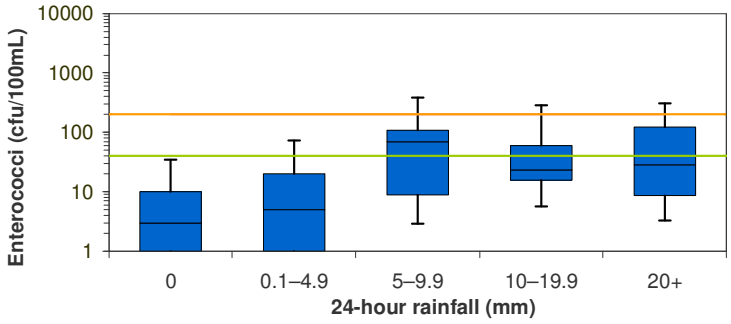
Microbial Assessment: **B**

Monitoring period for 2012–13 result is August 2011 to April 2013.

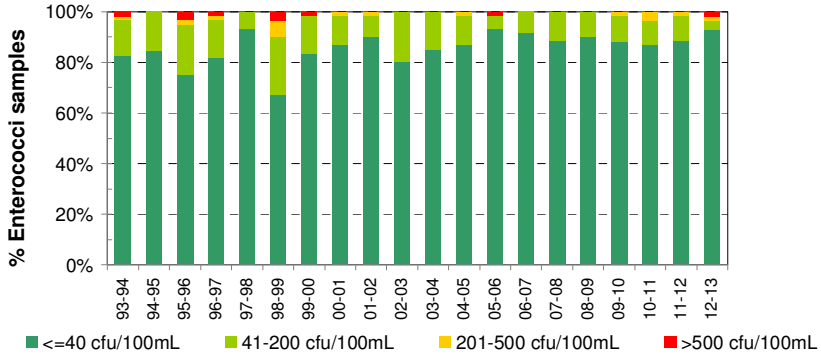


Response to rainfall

Rainfall from Waverly rain gauge



Trends in enterococci data through time



Tamarama Beach

Beach Suitability Grade: **Good**

See 'How to read this report' for key to map

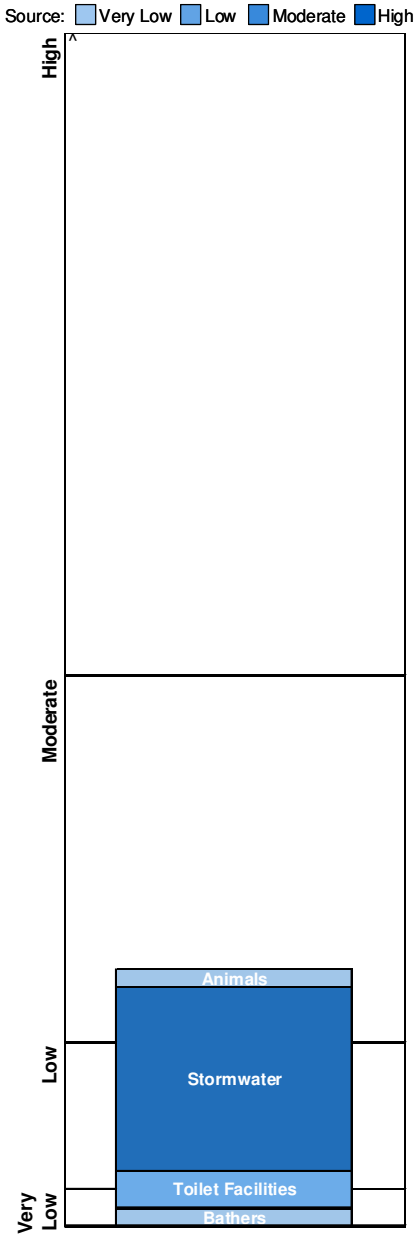
Tamarama Beach is approximately 80 metres long and is closed to board riders during patrol hours. Swimming can be very hazardous because of the rips. Lifeguards patrol the beach from late September to April.

The Beach Suitability Grade of Good indicates that microbial water quality is suitable for swimming most of the time, but the water may be susceptible to pollution from several potential sources of faecal contamination, including stormwater.

The response to rainfall graph indicates that enterococci levels increased with increasing rainfall, often exceeding the safe swimming limit in response to 5 mm of rainfall or more.

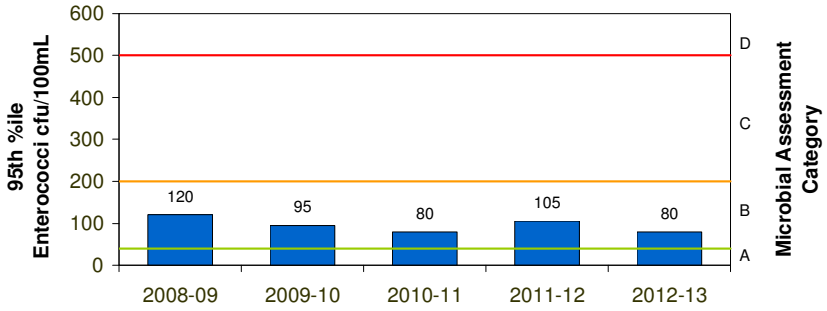
The site has been monitored since 1989.

Sanitary Inspection: **Moderate**



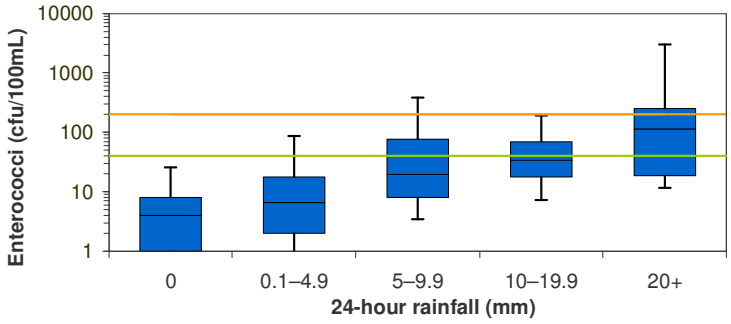
Microbial Assessment: **B**

Monitoring period for 2012–13 result is August 2011 to April 2013.

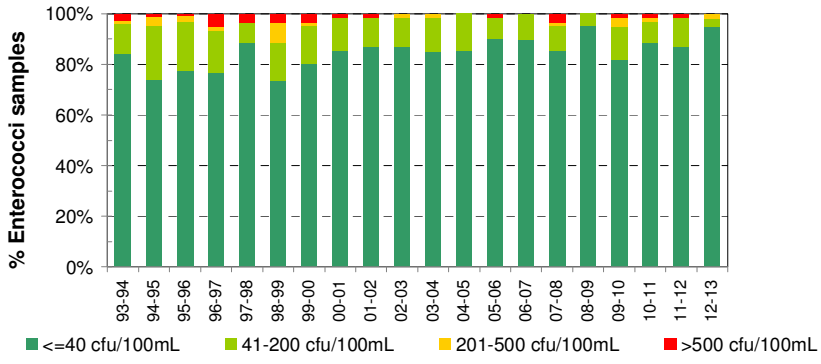


Response to rainfall

Rainfall from Waverly rain gauge



Trends in enterococci data through time



Bronte Beach

Beach Suitability Grade: **Good**

See 'How to read this report' for key to map

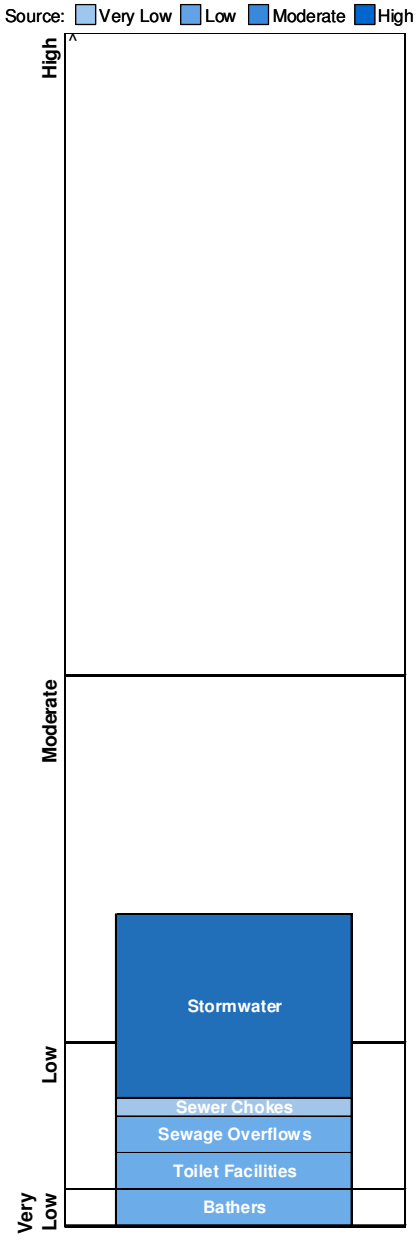
Bronte Beach is 250 metres long and backed by a large park and picnic area. Lifeguards patrol the beach between late September and mid-May.

The Beach Suitability Grade of Good indicates that microbial water quality is suitable for swimming most of the time, but the water may be susceptible to pollution from several potential sources of faecal contamination including stormwater.

The response to rainfall graph indicates that enterococci levels generally increased with increasing rainfall, often exceeding the safe swimming limit after 5 mm of rainfall or more.

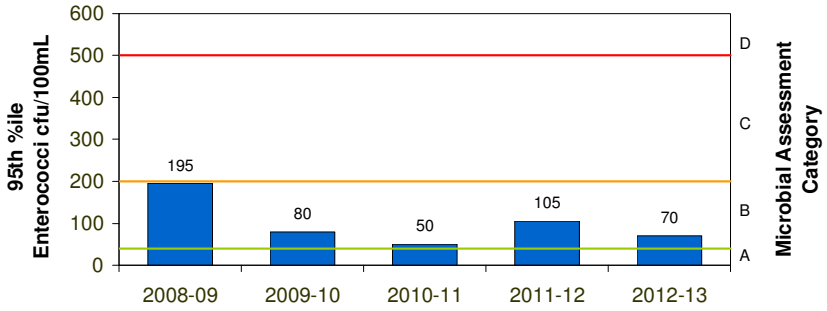
The site has been monitored since 1989.

Sanitary Inspection: **Moderate**



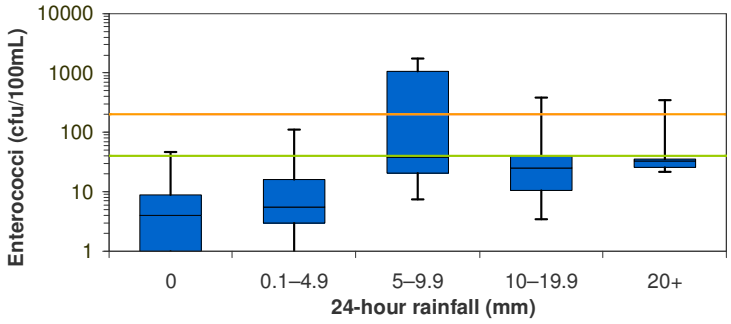
Microbial Assessment: **B**

Monitoring period for 2012–13 result is August 2011 to April 2013.

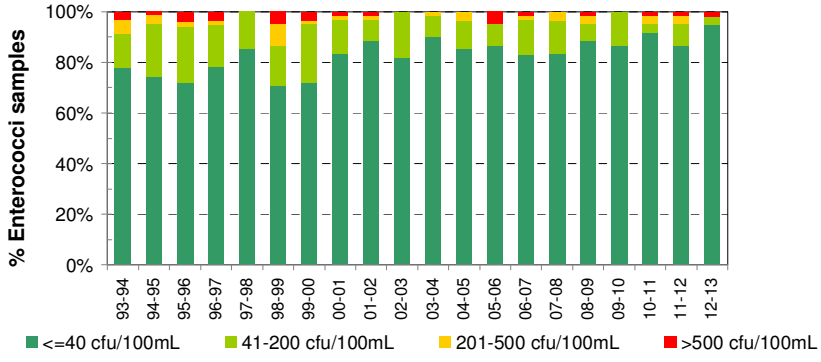


Response to rainfall

Rainfall from Waverly rain gauge



Trends in enterococci data through time



Clovelly Beach

Beach Suitability Grade: **Good**

See 'How to read this report' for key to map

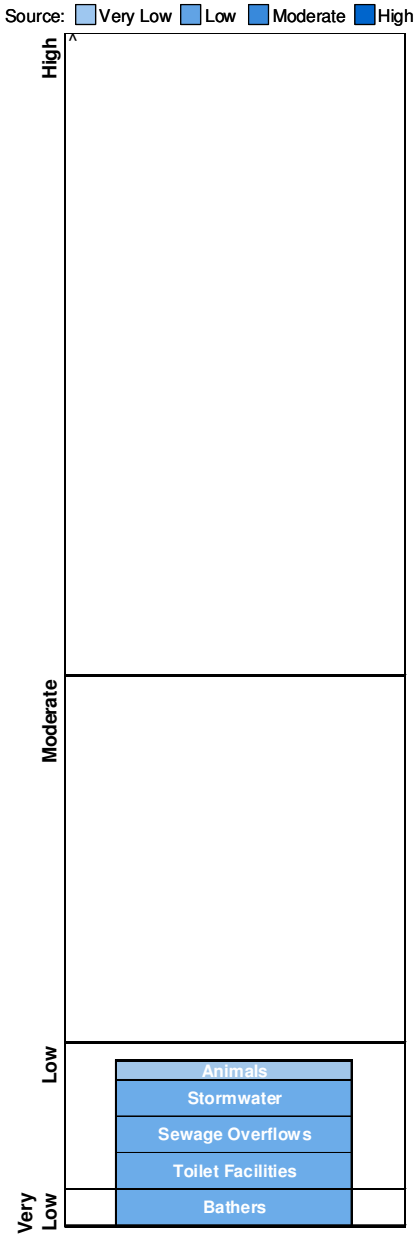
Clovelly Beach is at the end of a long and narrow bay and is protected from ocean swells. Wheelchair access to the water is provided. It is one of the safest beaches in Sydney and is patrolled from late September to April.

The Beach Suitability Grade of Good indicates that microbial water quality is suitable for swimming most of the time, but the water may be susceptible to pollution from several potential sources of faecal contamination.

The response to rainfall graph indicates that enterococci levels increased slightly with increasing rainfall but rarely exceeded the safe swimming limit in any rainfall category.

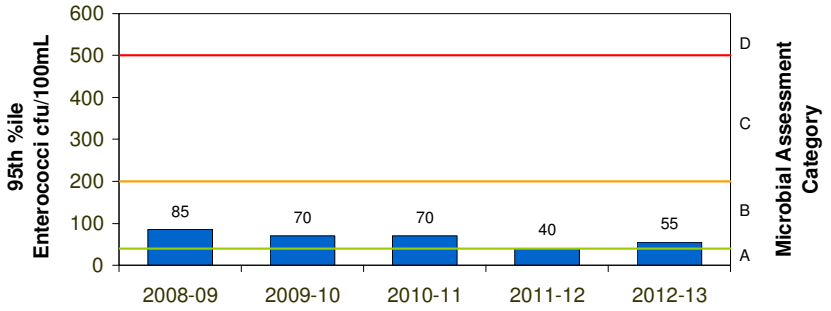
The site has been monitored since 1989.

Sanitary Inspection: **Low**



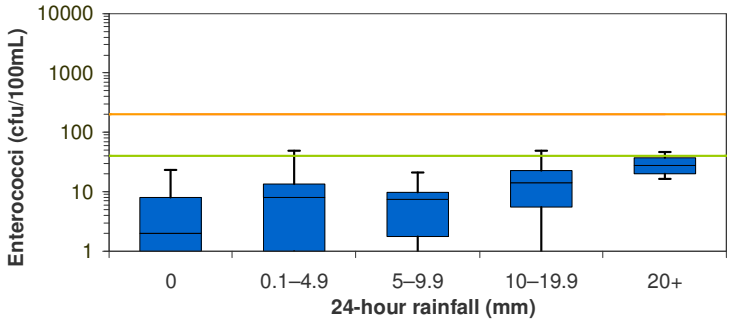
Microbial Assessment: **B**

Monitoring period for 2012–13 result is August 2011 to April 2013.

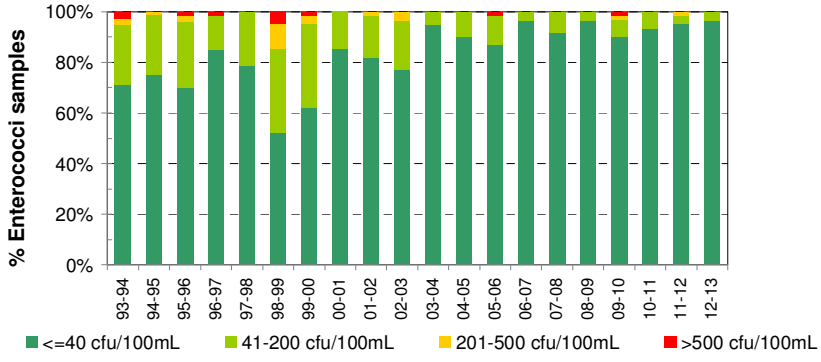


Response to rainfall

Rainfall from Waverly rain gauge



Trends in enterococci data through time



Coogee Beach

Beach Suitability Grade: **Good**

See 'How to read this report' for key to map

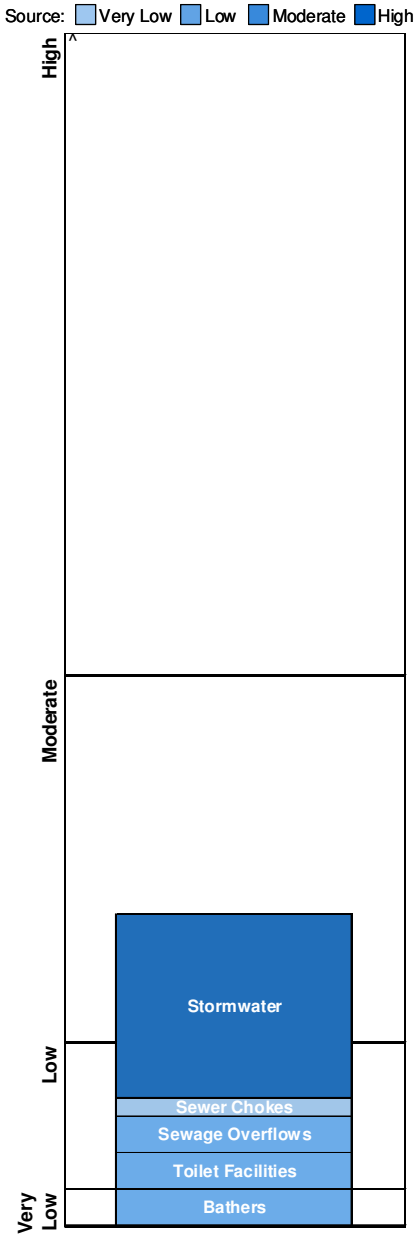
Coogee Beach is 400 metres long and is backed by a promenade and parklands. The beach has a reputation for safe swimming and lifeguards patrol the beach all year round.

The Beach Suitability Grade of Good indicates that microbial water quality is suitable for swimming most of the time, but the water may be susceptible to pollution from several potential sources of faecal contamination, including stormwater.

The response to rainfall graph indicates that enterococci levels increased with increasing rainfall, regularly exceeding the safe swimming limit after 5 mm of rainfall or more.

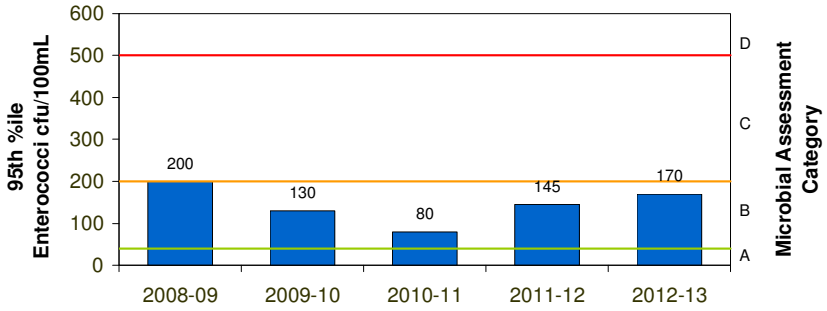
The site has been monitored since 1989.

Sanitary Inspection: **Moderate**



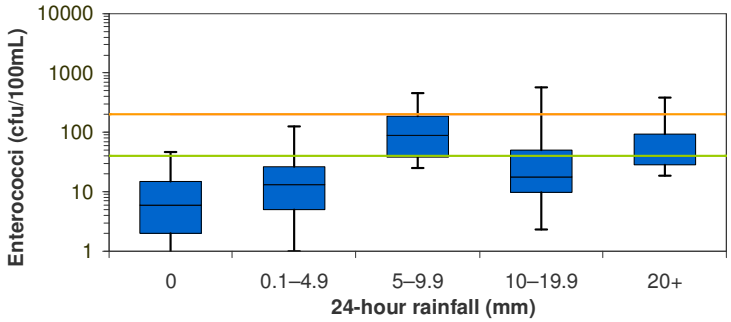
Microbial Assessment: **B**

Monitoring period for 2012–13 result is August 2011 to April 2013.

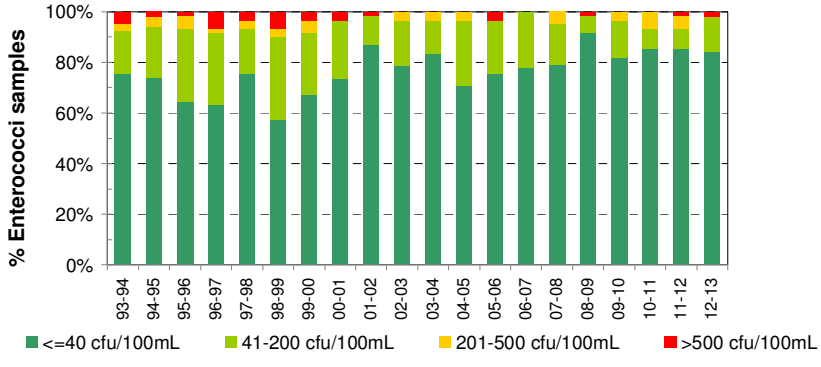


Response to rainfall

Rainfall from Malabar STP rain gauge



Trends in enterococci data through time



Maroubra Beach

Beach Suitability Grade: **Very Good**

See 'How to read this report' for key to map

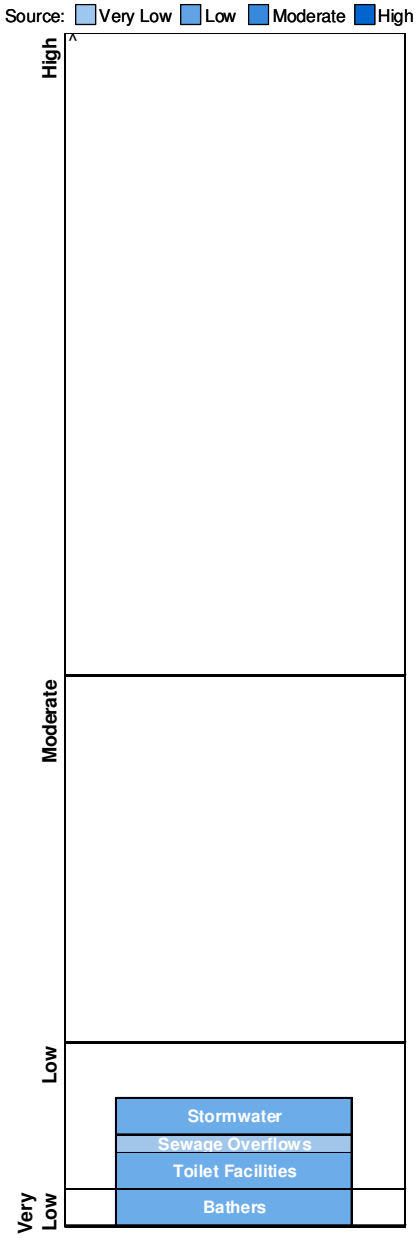
Maroubra Beach is one kilometre long. Strong rips create hazardous conditions at the beach, particularly in the centre and north. Lifeguards patrol the beach all year round.

The Beach Suitability Grade of Very Good indicates that microbial water quality is considered suitable for swimming almost all of the time, with few significant sources of faecal contamination.

The response to rainfall graph indicates that enterococci levels increased slightly with increasing rainfall, often exceeding the safe swimming limit in response to 5 mm of rainfall.

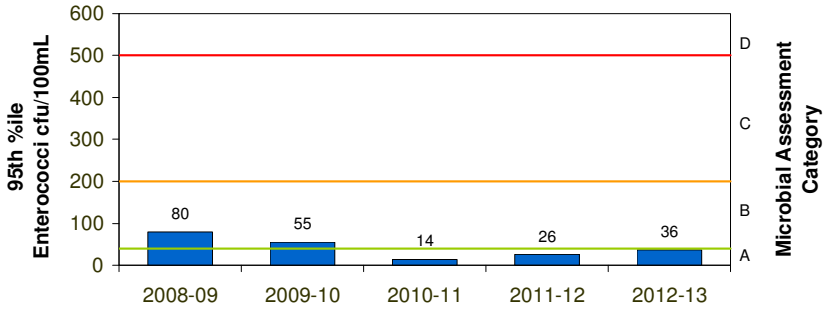
The site has been monitored since 1989.

Sanitary Inspection: **Low**



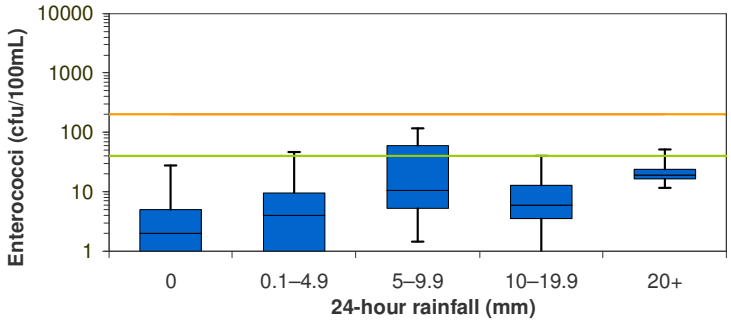
Microbial Assessment: **A**

Monitoring period for 2012–13 result is August 2011 to April 2013.

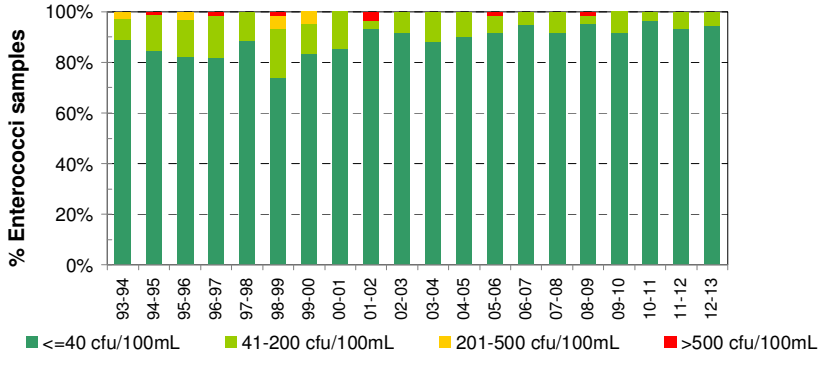


Response to rainfall

Rainfall from Malabar STP rain gauge



Trends in enterococci data through time



South Maroubra Beach

Beach Suitability Grade: **Good**

See 'How to read this report' for key to map

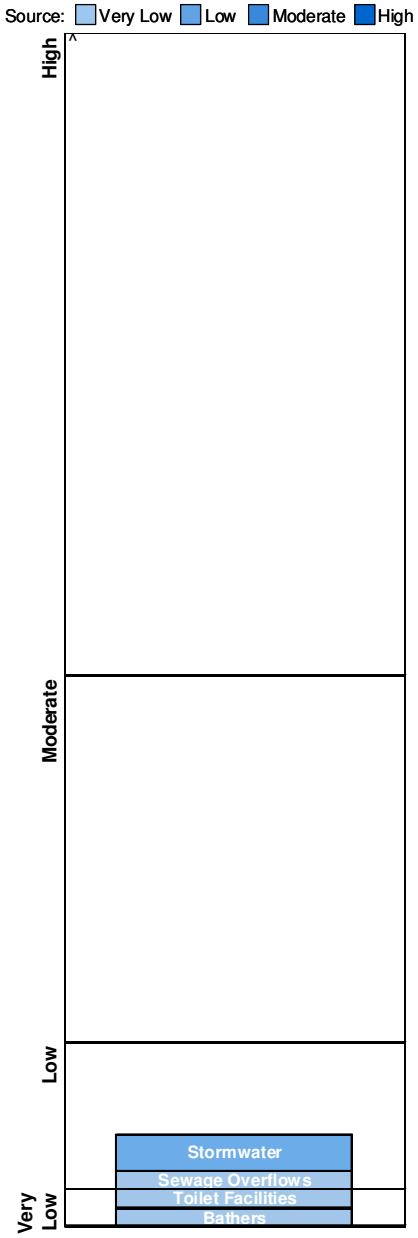
Maroubra Beach is one kilometre long. Strong rips create hazardous conditions at the beach, particularly in the centre and north. Lifeguards patrol the beach all year round.

The Beach Suitability Grade of Good indicates that microbial water quality is suitable for swimming most of the time, but the water may be susceptible to pollution following rainfall.

The response to rainfall graph indicates that enterococci levels increased slightly with increasing rainfall but there is currently insufficient data available to adequately define trends.

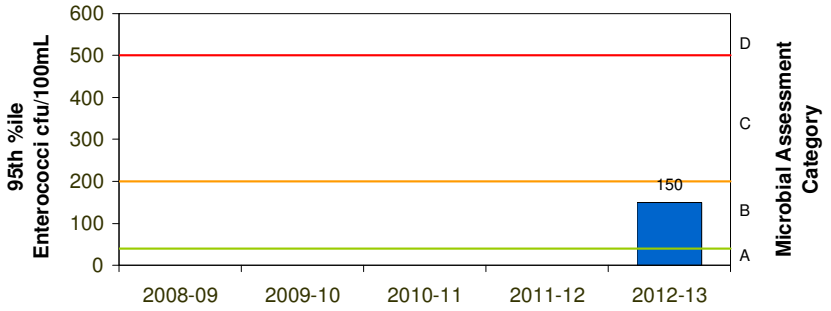
The site has been monitored since December 2012.

Sanitary Inspection: **Low**



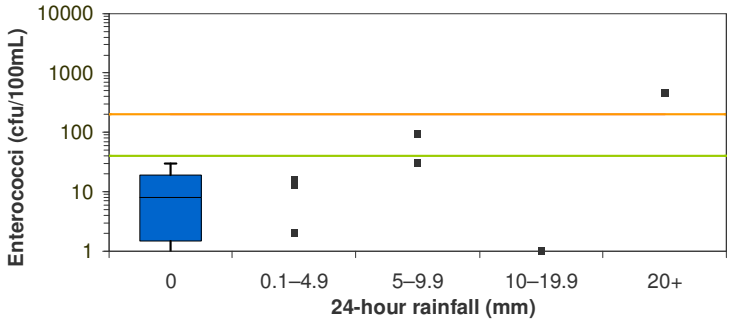
Microbial Assessment: **B**

Monitoring period for 2012–13 result is December 2012 to April 2013.

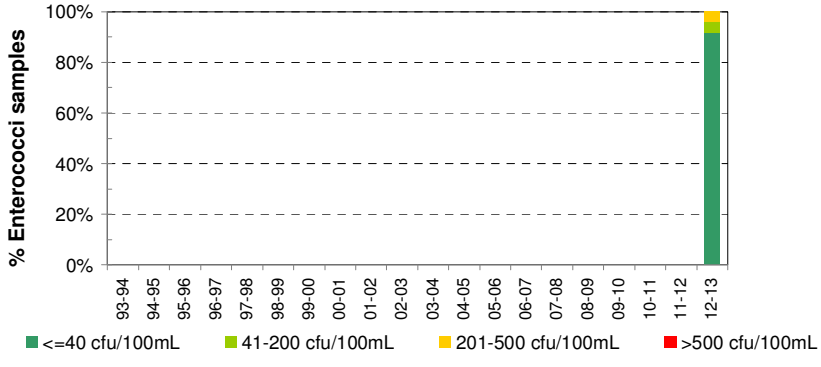


Response to rainfall

Rainfall from Malabar STP rain gauge



Trends in enterococci data through time



Malabar Beach

Beach Suitability Grade: **Good**

See 'How to read this report' for key to map

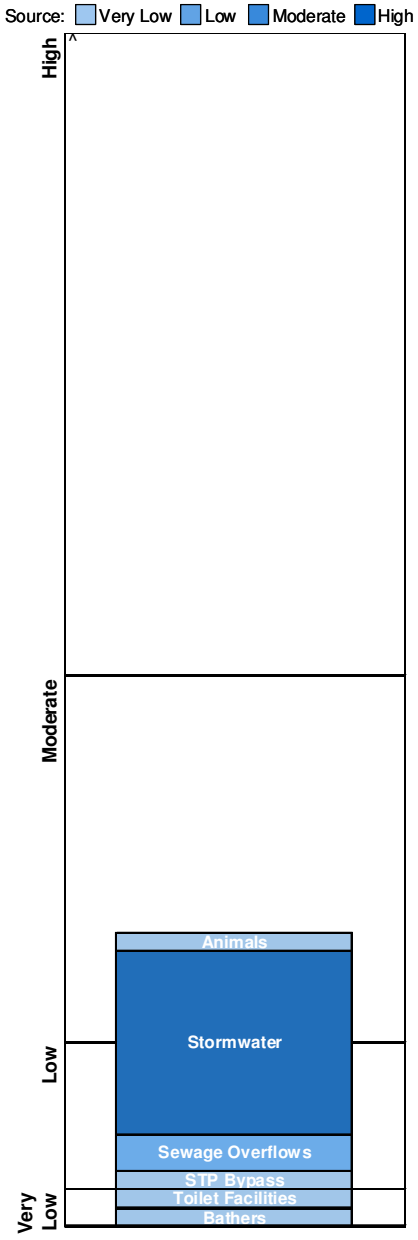
Malabar Beach is 150 metres long and situated at the end of a long, narrow bay. It is backed by a small park and picnic area. The beach is not patrolled.

The Beach Suitability Grade of Good indicates that microbial water quality is suitable for swimming most of the time, but the water may be susceptible to pollution, with several potential sources of contamination, including stormwater.

The response to rainfall graph indicates that enterococci levels increased slightly with increasing rainfall, but there is currently insufficient data available to adequately define trends.

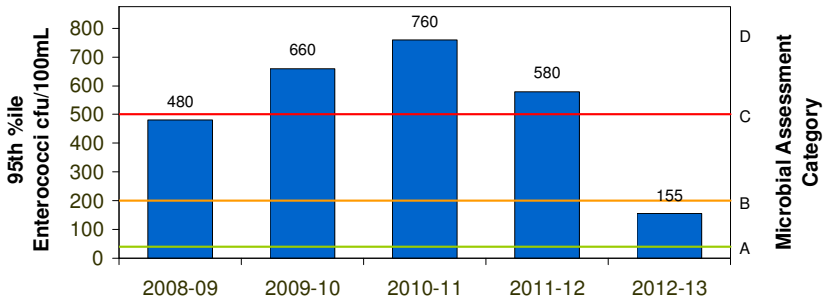
The site has been monitored since 1989, with significant improvements in water quality in 2012–2013 due to the diversion of the large stormwater drain at the northern end of the beach.

Sanitary Inspection: **Moderate**



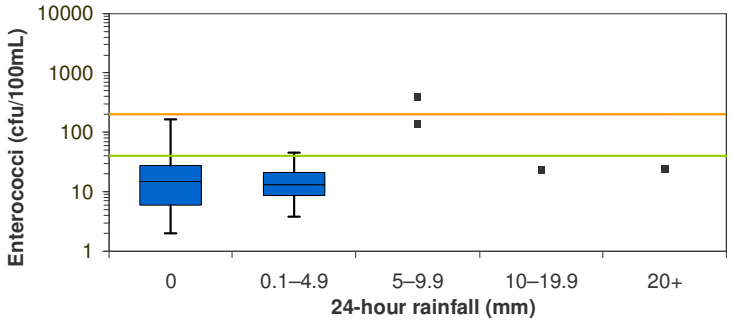
Microbial Assessment: **B**

Monitoring period for 2012–13 result is June 2012 to April 2013.

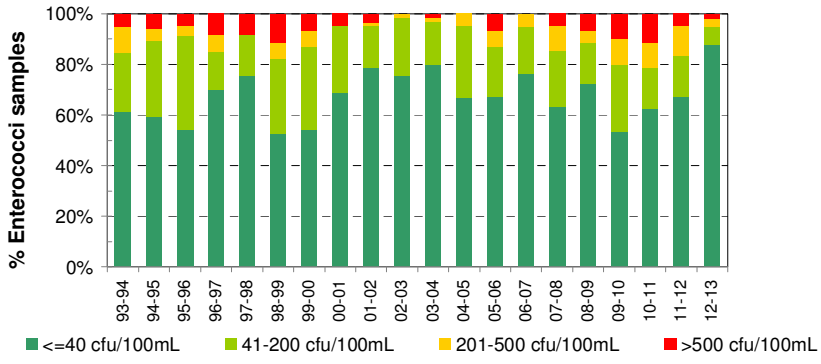


Response to rainfall

Rainfall from Malabar STP rain gauge



Trends in enterococci data through time



Little Bay Beach

Beach Suitability Grade: **Good**

See 'How to read this report' for key to map

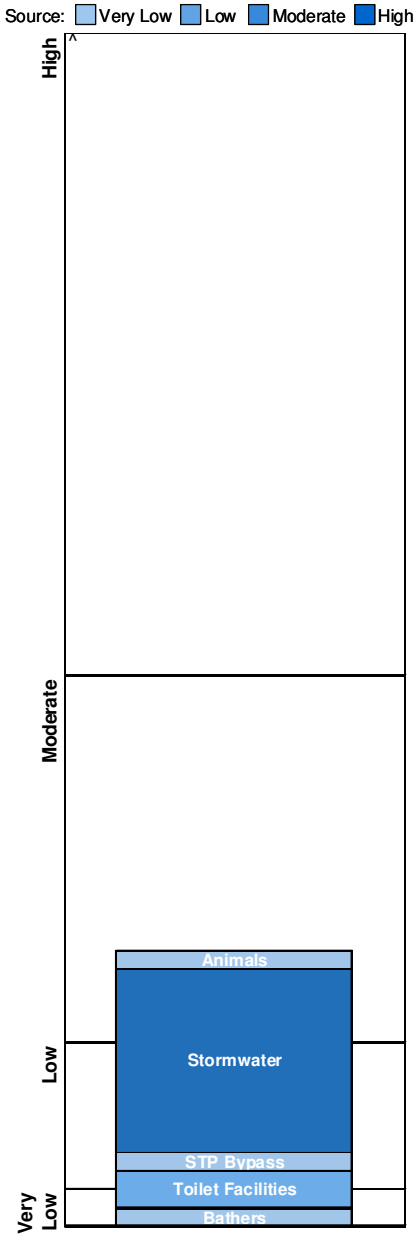
Little Bay Beach is a small, crescent-shaped beach bounded by rocky headlands to the north and south. Beach conditions are generally calm and the beach is not patrolled. The bay is backed by a golf course and a new residential development.

The Beach Suitability Grade of Good indicates that water quality is safe for swimming most of the time, but the water can be susceptible to pollution, with several potential sources of faecal contamination.

The response to rainfall graph indicates that enterococci levels increased with increasing rainfall, regularly exceeding the safe swimming limit after 5 mm of rainfall or more.

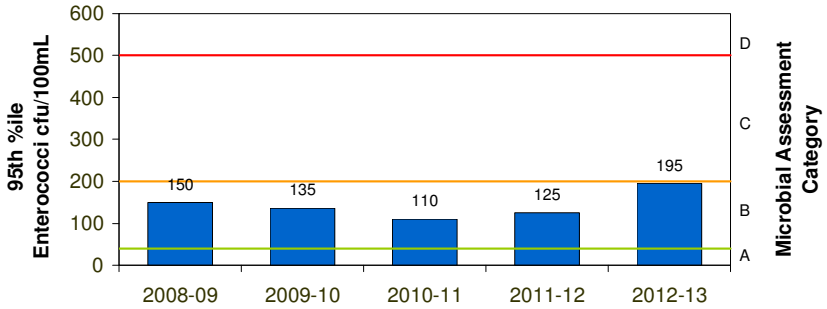
The site was monitored between 1989 and 1995. Sampling recommenced in 2006 in response to the increased popularity of the beach as a result of surrounding urban development.

Sanitary Inspection: **Moderate**



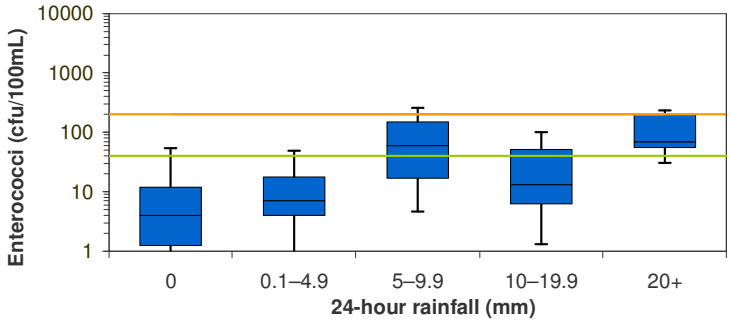
Microbial Assessment: **B**

Monitoring period for 2012–13 result is August 2011 to April 2013.

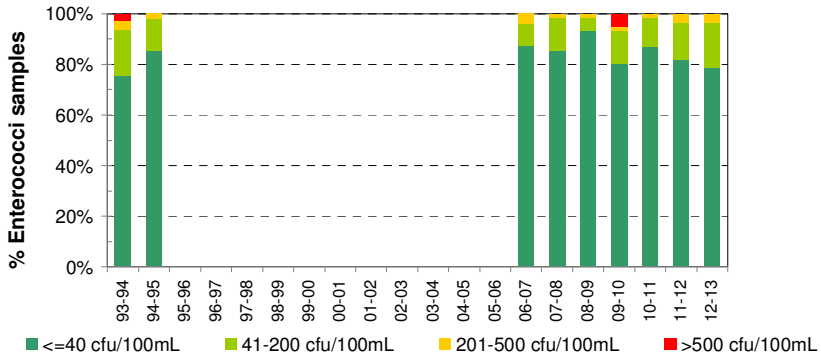


Response to rainfall

Rainfall from Malabar STP rain gauge



Trends in enterococci data through time



Watsons Bay

Beach Suitability Grade: **Good**

See 'How to read this report' for key to map

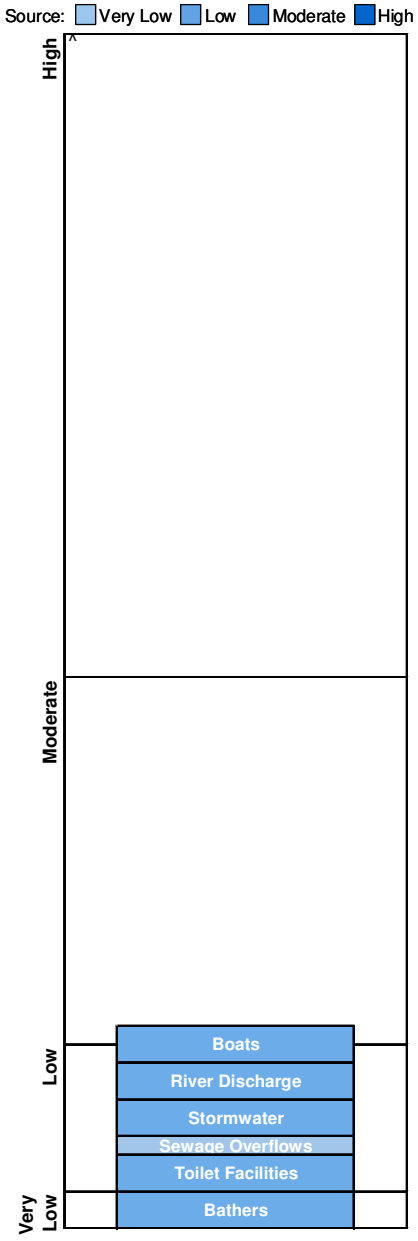
The swimming site is a 20 by 40 metre enclosed tidal swimming area next to the Vaucluse Yacht Club. The baths are backed by a narrow sandy beach and parklands with picnic facilities.

The Beach Suitability Grade of Good indicates that microbial water quality is suitable for swimming most of the time but the water may be susceptible to pollution from several potential sources of faecal contamination.

The response to rainfall graph indicates that enterococci levels increased with increasing rainfall, regularly exceeding the safe swimming limit in response to 20 mm of rainfall or more.

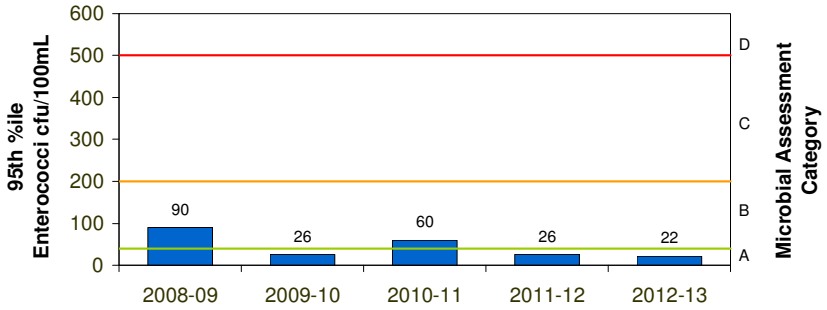
The site has been monitored since 1994. Microbial water quality has generally improved since 2000–2001 owing to licensing of discharges from the sewerage system and improved management of stormwater.

Sanitary Inspection: **Moderate**



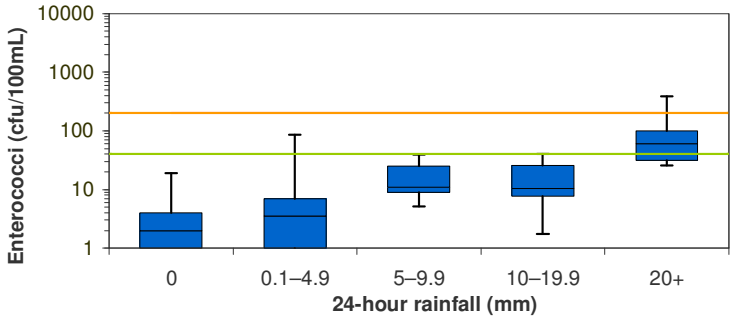
Microbial Assessment: **A**

Monitoring period for 2012–13 result is December 2010 to April 2013.

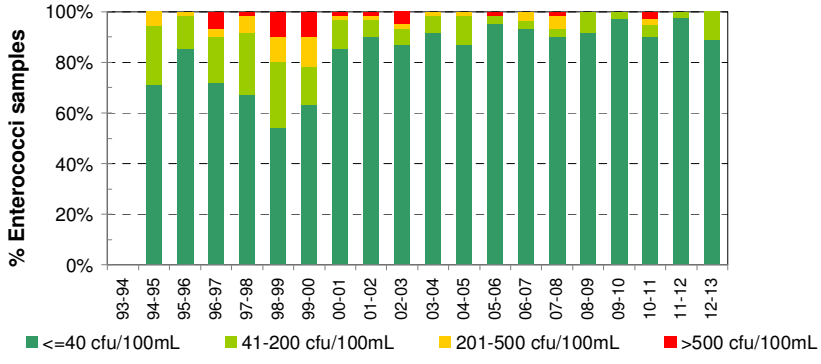


Response to rainfall

Rainfall from Mosman rain gauge

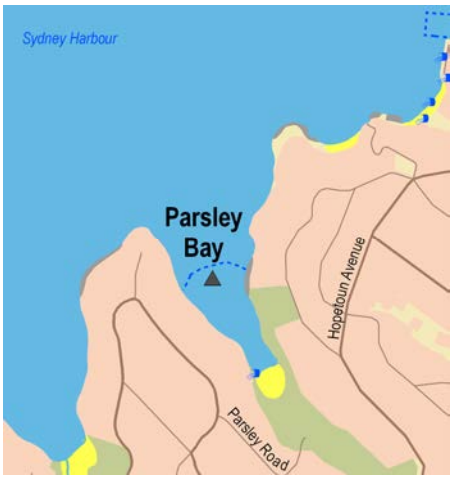


Trends in enterococci data through time



Parsley Bay

Beach Suitability Grade: **Good**



See 'How to read this report' for key to map

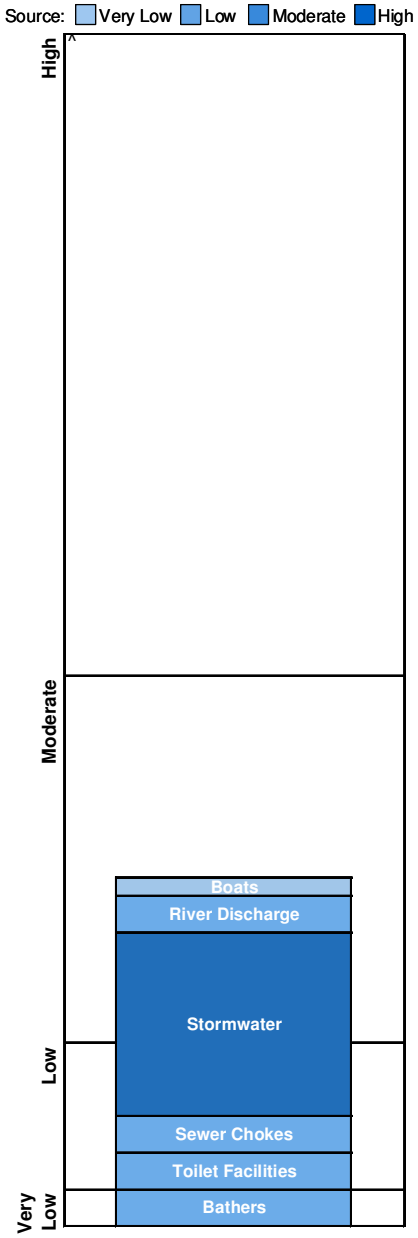
The southern end of Parsley Bay is netted from September to May to provide a large and safe swimming area. The sandy beach is backed by Parsley Bay Reserve, which contains picnic facilities and a playground.

The Beach Suitability Grade of Good indicates that microbial water quality is suitable for swimming most of the time but the water may be susceptible to pollution from several potential sources of faecal contamination, including stormwater.

The response to rainfall graph indicates that enterococci levels increased with increasing rainfall, often exceeding the safe swimming limit in response to 5 mm of rainfall or more.

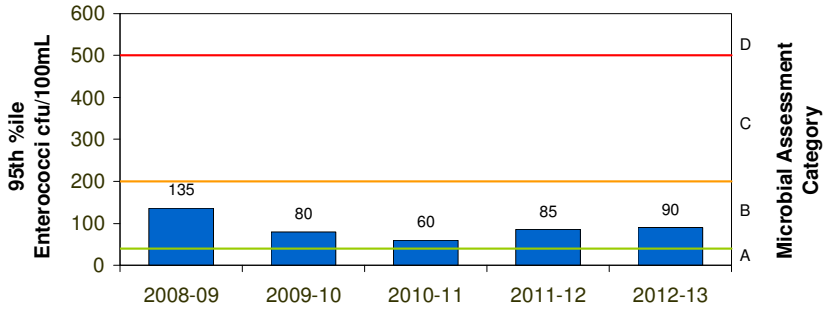
The site has been monitored since 1994. Microbial water quality has generally improved since 2000–2001 owing to licensing of discharges from the sewerage system and improved management of stormwater.

Sanitary Inspection: **Moderate**



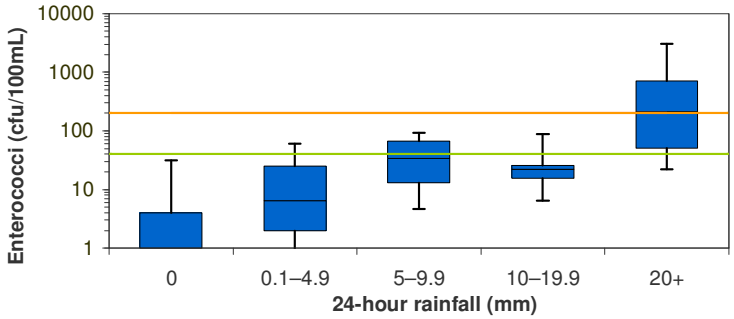
Microbial Assessment: **B**

Monitoring period for 2012–13 result is December 2010 to April 2013.

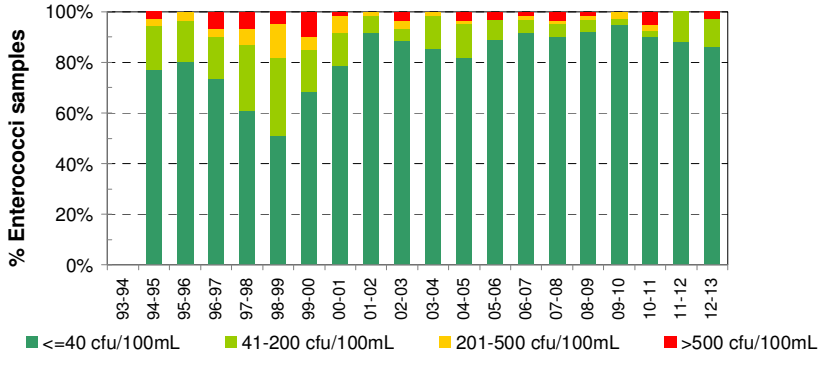


Response to rainfall

Rainfall from Mosman rain gauge



Trends in enterococci data through time



Nielsen Park

Beach Suitability Grade: **Very Good**

See 'How to read this report' for key to map

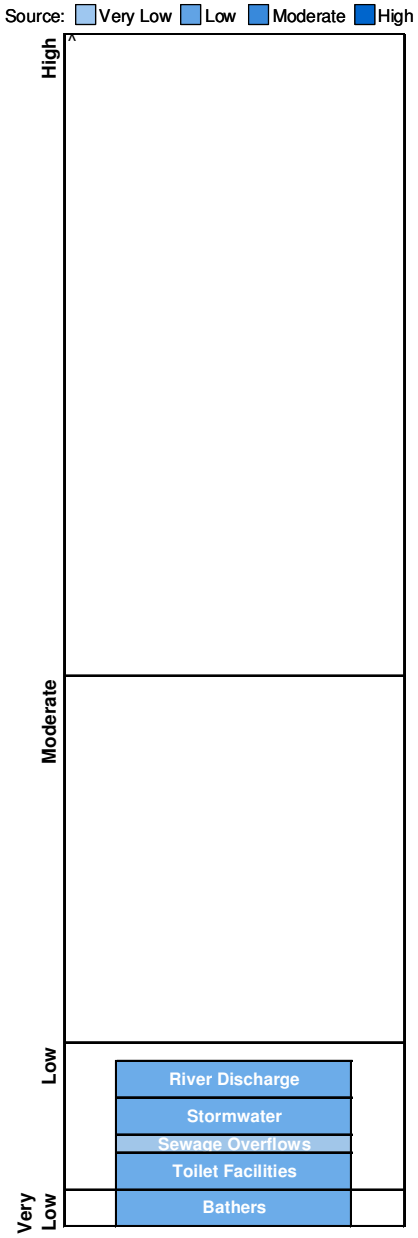
The Nielsen Park swimming area is approximately 150 metres long and enclosed by a shark net between October and April. The sandy beach and surrounding parklands are part of Sydney Harbour National Park. There are toilet and shower facilities, a café and a restaurant.

The Beach Suitability Grade of Very Good indicates that microbial water quality is considered suitable for swimming almost all of the time, with few significant sources of faecal contamination.

The response to rainfall graph indicates that enterococci levels increased slightly with increasing rainfall, often exceeding the safe swimming limit in response to 20 mm of rainfall or more.

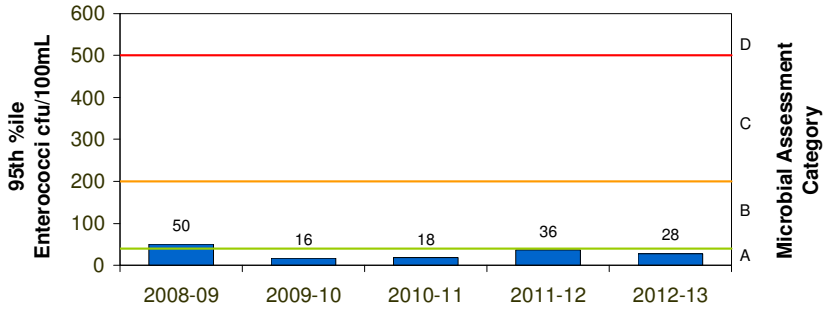
The site has been monitored since 1994. Microbial water quality has generally improved since 2000–2001 owing to licensing of discharges from the sewerage system and improved management of stormwater.

Sanitary Inspection: **Low**



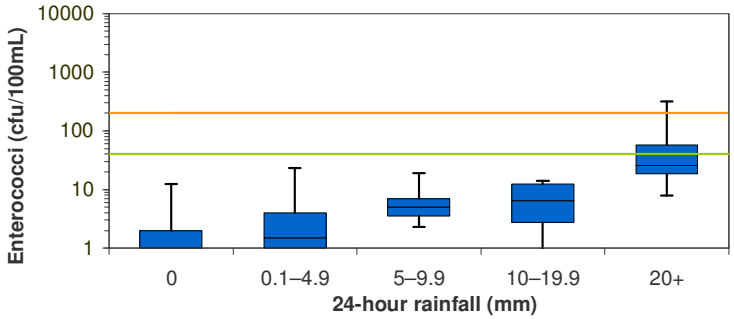
Microbial Assessment: **A**

Monitoring period for 2012–13 result is December 2010 to April 2013.

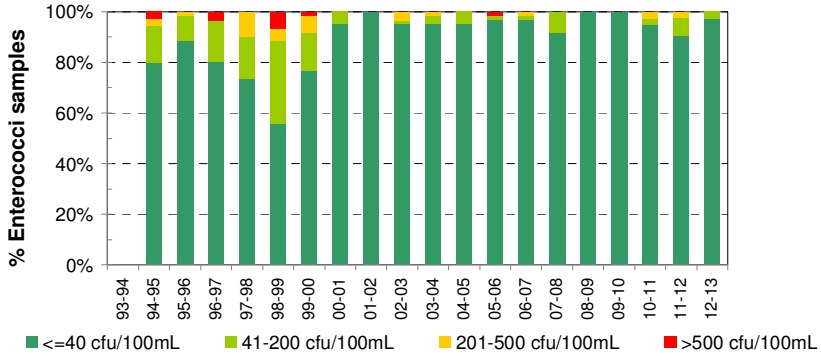


Response to rainfall

Rainfall from Mosman rain gauge



Trends in enterococci data through time



Rose Bay Beach

Beach Suitability Grade: **Good**

See 'How to read this report' for key to map

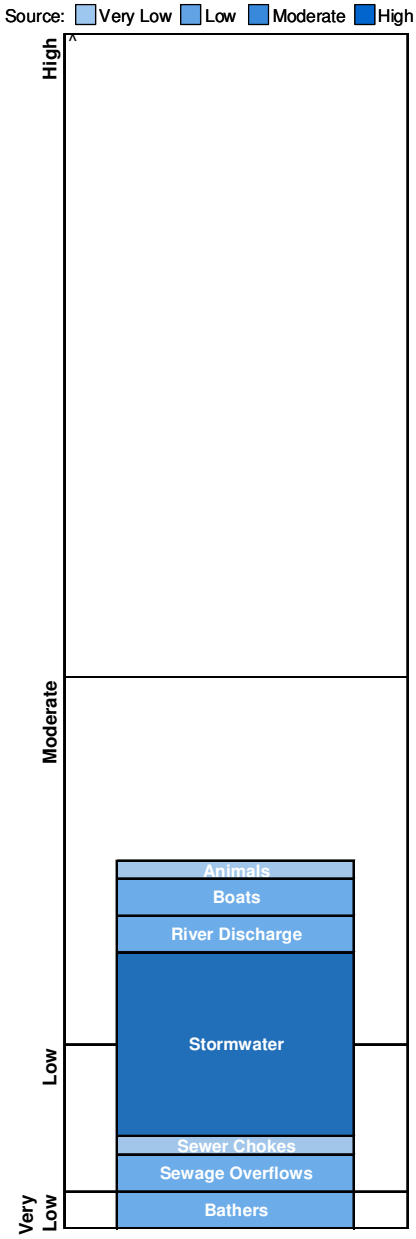
Rose Bay Beach is approximately 500 metres long and the swimming area is not netted. The bay is popular for recreational boating, and a sailing school and sailboat hire company operate in the area. A park with picnic and playground facilities is located adjacent to the beach.

The Beach Suitability Grade of Good indicates that microbial water quality is suitable for swimming most of the time but the water may be susceptible to pollution from several potential sources of faecal contamination, including stormwater.

The response to rainfall graph indicates that enterococci levels increased with increasing rainfall, often exceeding the safe swimming limit in response to 5 mm of rainfall or more.

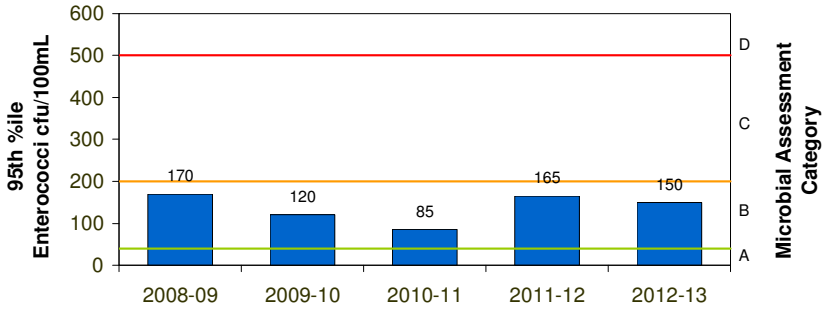
The site has been monitored since 1994. Microbial water quality has generally improved since 2000–2001 owing to licensing of discharges from the sewerage system and improved management of stormwater.

Sanitary Inspection: **Moderate**



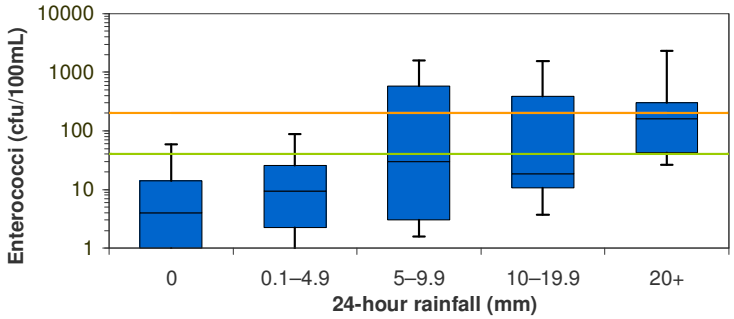
Microbial Assessment: **B**

Monitoring period for 2012–13 result is December 2010 to April 2013.

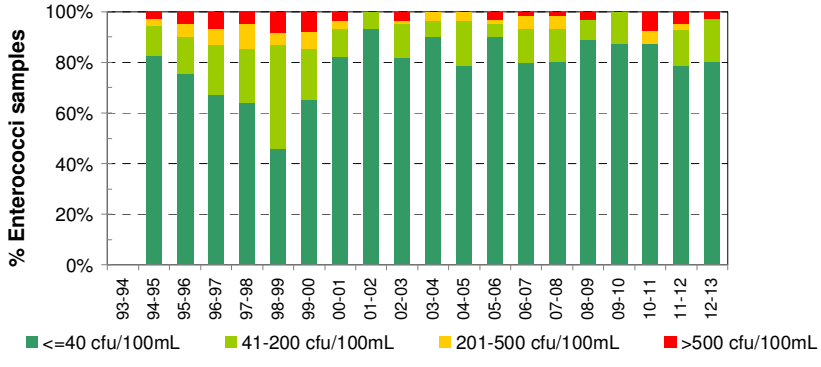


Response to rainfall

Rainfall from Mosman rain gauge



Trends in enterococci data through time



Murray Rose Pool

Beach Suitability Grade: **Good**

See 'How to read this report' for key to map

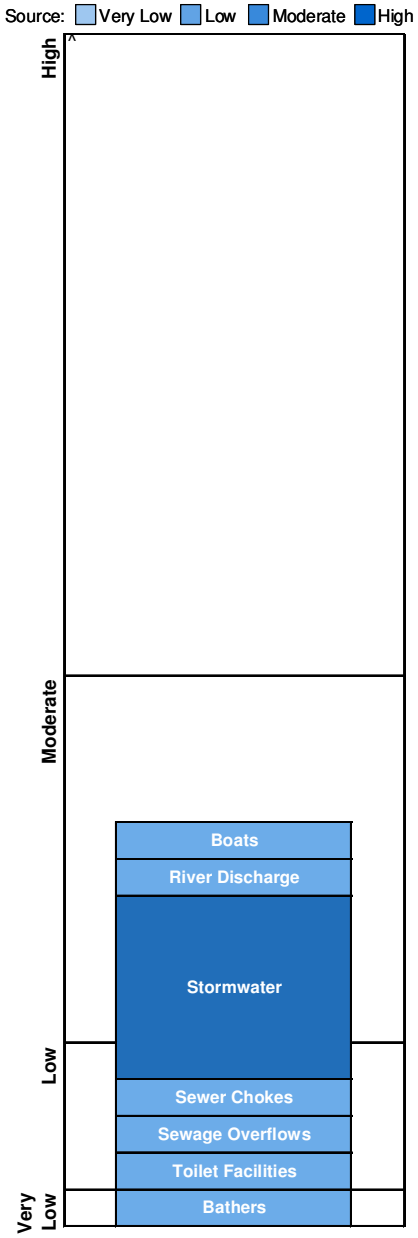
Murray Rose Pool (formerly Redleaf Pool) is a netted swimming enclosure located in Double Bay, at the end of Seven Shillings Beach. The pool is bordered on three sides by a narrow sun deck and is backed by a park and Woollahra Council office.

The Beach Suitability Grade of Good indicates that microbial water quality is suitable for swimming most of the time but the water may be susceptible to pollution from several potential sources of faecal contamination, including stormwater.

The response to rainfall graph indicates that enterococci levels increased with increasing rainfall, regularly exceeding the safe swimming limit in response to 10 mm of rainfall or more.

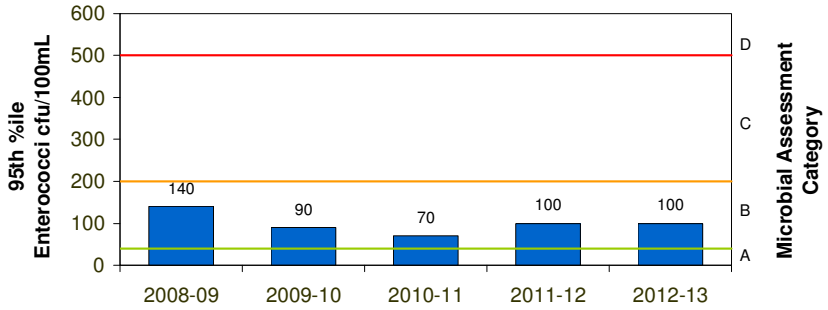
The site has been monitored since 1994. Microbial water quality has generally improved since 2000–2001 owing to licensing of discharges from the sewerage system and improved management of stormwater.

Sanitary Inspection: **Moderate**



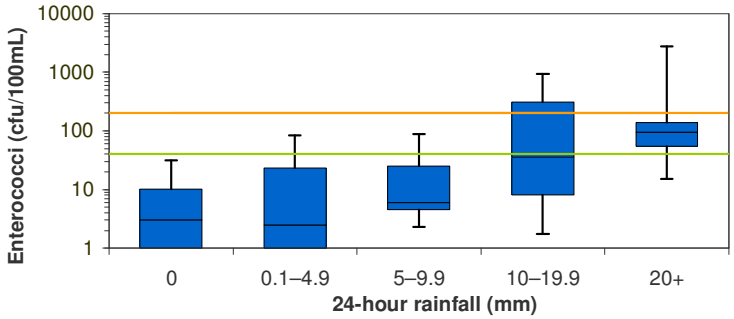
Microbial Assessment: **B**

Monitoring period for 2012–13 result is December 2010 to April 2013.

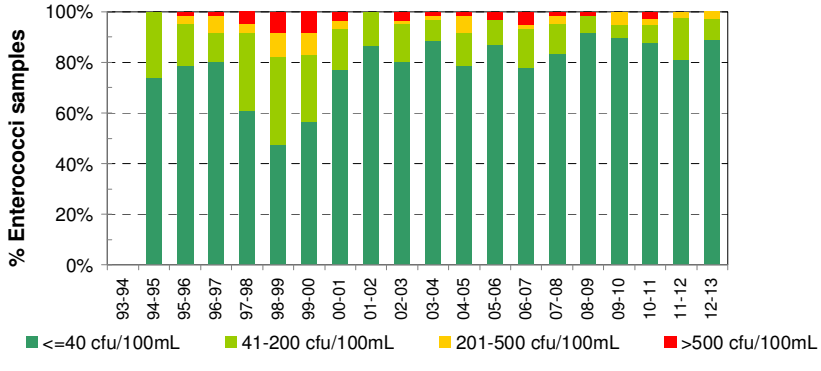


Response to rainfall

Rainfall from Mosman rain gauge

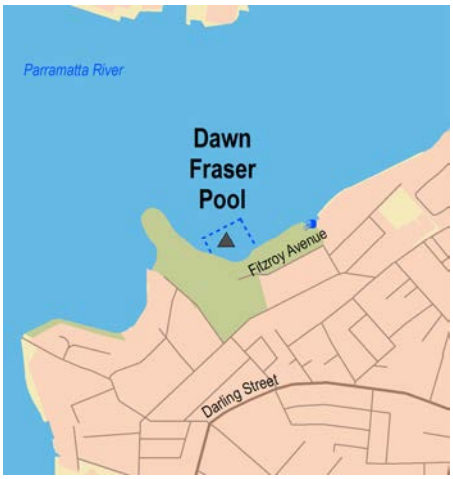


Trends in enterococci data through time



Dawn Fraser Pool

Beach Suitability Grade: **Good**



See 'How to read this report' for key to map

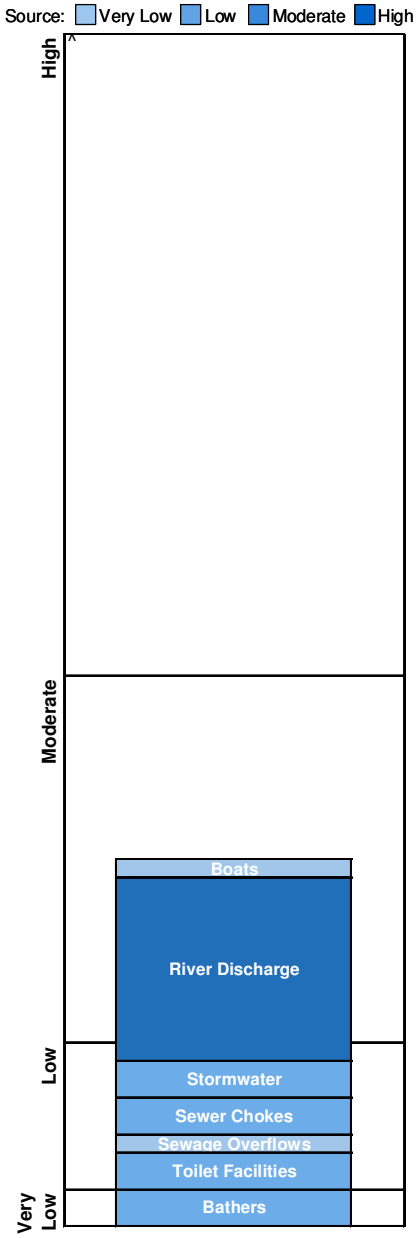
Dawn Fraser Pool in Balmain is the oldest pool and swimming club in Australia and is listed on the NSW State Heritage Register. Boardwalks and a pavilion surround the enclosed tidal swimming area. The pool is open between October and April each year.

The Beach Suitability Grade of Good indicates that microbial water quality is suitable for swimming most of the time but the water may be susceptible to pollution from several potential sources of faecal contamination including upstream sources in the Parramatta River.

The response to rainfall graph indicates that enterococci levels increase with increasing rainfall, regularly exceeding the safe swimming limit in response to 10 mm of rainfall or more.

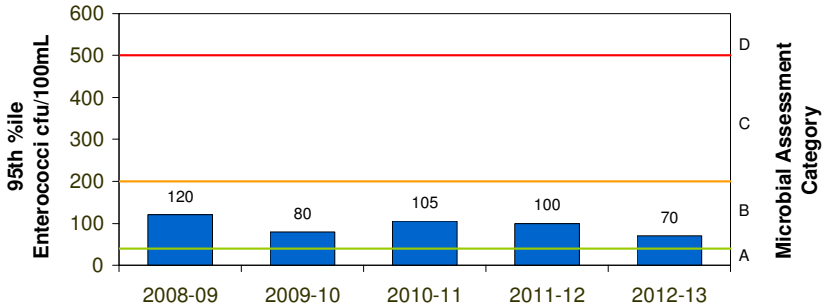
The site has been monitored since 1994. Microbial water quality has generally improved since 2000–2001 owing to licensing of discharges from the sewerage system and improved management of stormwater.

Sanitary Inspection: **Moderate**



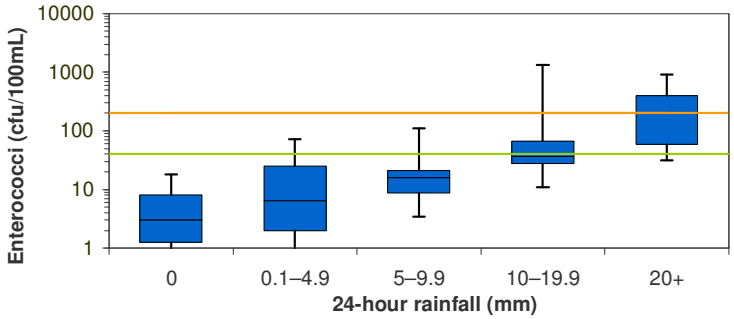
Microbial Assessment: **B**

Monitoring period for 2012–13 result is December 2010 to April 2013.

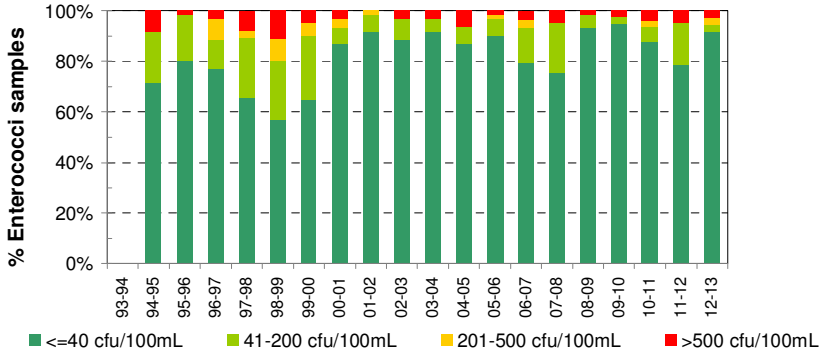


Response to rainfall

Rainfall from Lilyfield rain gauge



Trends in enterococci data through time



Chiswick Baths

Beach Suitability Grade: **Good**

See 'How to read this report' for key to map

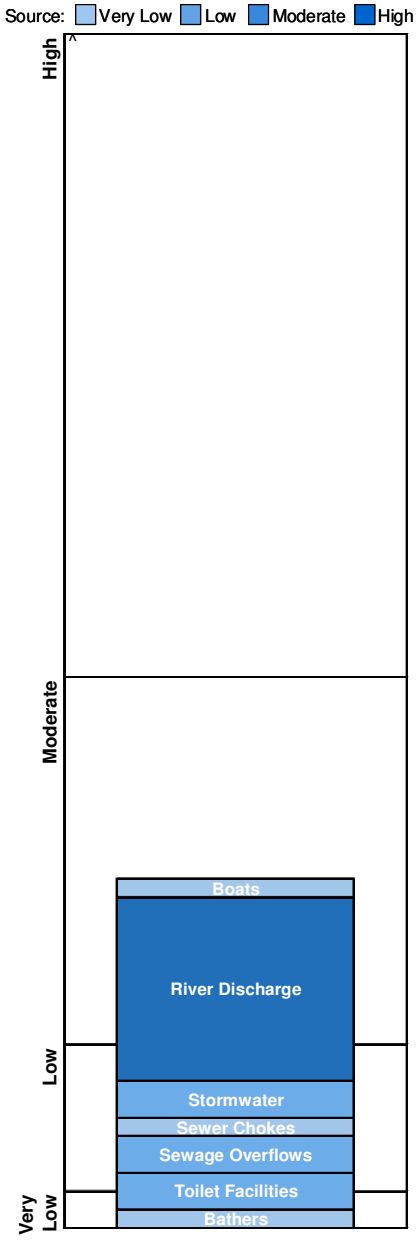
Chiswick Baths are a netted swimming enclosure in Five Dock Bay. The swimming site is backed by a narrow sandy beach and a park with picnic and barbeque facilities.

The Beach Suitability Grade of Good indicates that the water quality is safe for swimming most of the time but can be susceptible to pollution after heavy rain, with potential faecal contamination from stormwater and upstream sources in the Parramatta River.

The response to rainfall graph indicates that enterococci levels increased with increasing rainfall, often exceeding the safe swimming limit in response to 5 mm of rainfall or more.

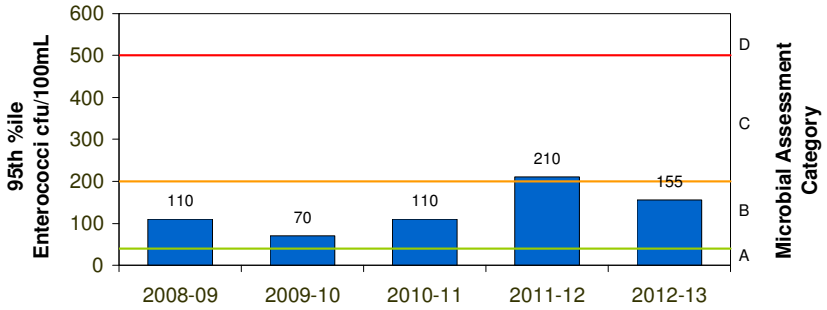
The site has been monitored since 1998. Microbial water quality has generally improved since 2000–2001 owing to licensing of discharges from the sewerage system and improved management of stormwater.

Sanitary Inspection: **Moderate**



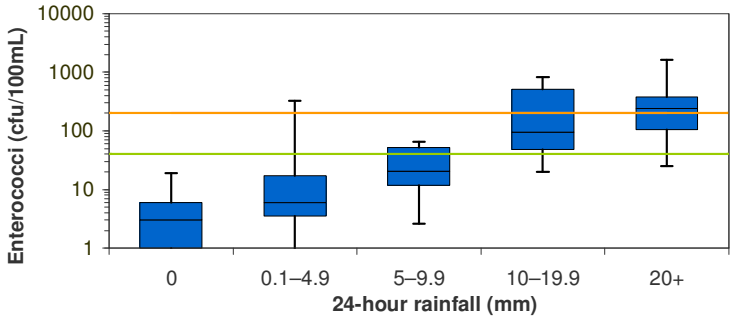
Microbial Assessment: **B**

Monitoring period for 2012–13 result is December 2010 to April 2013.

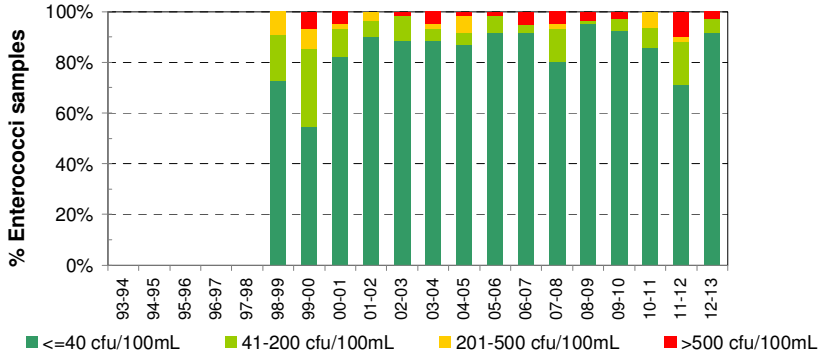


Response to rainfall

Rainfall from Gladesville rain gauge



Trends in enterococci data through time



Cabarita Beach

Beach Suitability Grade: **Good**

See 'How to read this report' for key to map

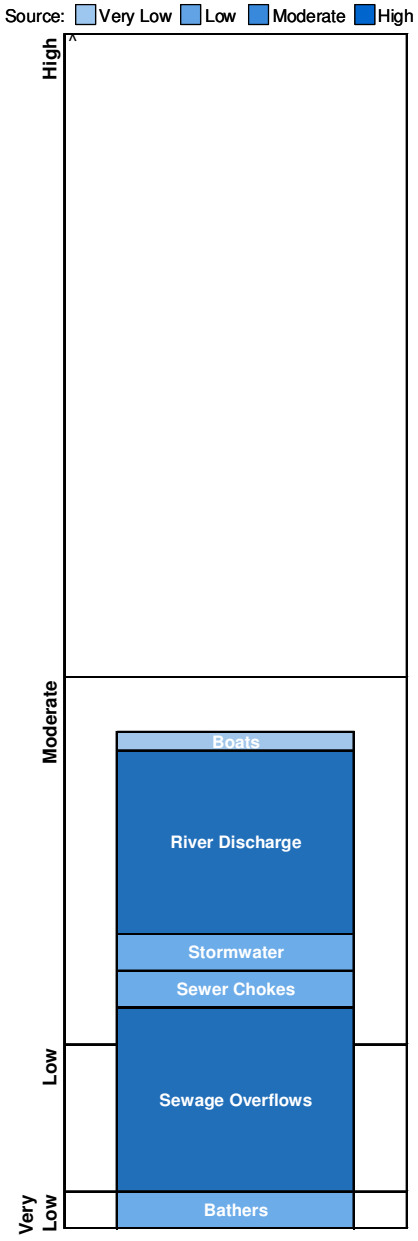
Cabarita Beach is located at the end of Cabarita Point. The beach is 120 metres long and is backed by parklands with picnic and barbeque facilities and a playground.

The Beach Suitability Grade of Good indicates that the water quality is safe for swimming most of the time but can be susceptible to pollution after heavy rain, with potential faecal contamination from sewage overflows and discharge from the Parramatta River.

The response to rainfall graph indicates that enterococci levels increased with increasing rainfall, regularly exceeding the safe swimming limit in response to 10 mm of rainfall or more.

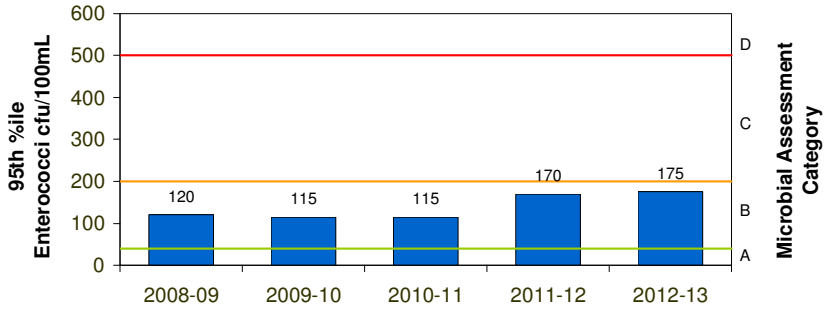
The site has been monitored since 1996. Microbial water quality has generally improved since 2000–2001 owing to licensing of discharges from the sewerage system and improved management of stormwater.

Sanitary Inspection: **Moderate**



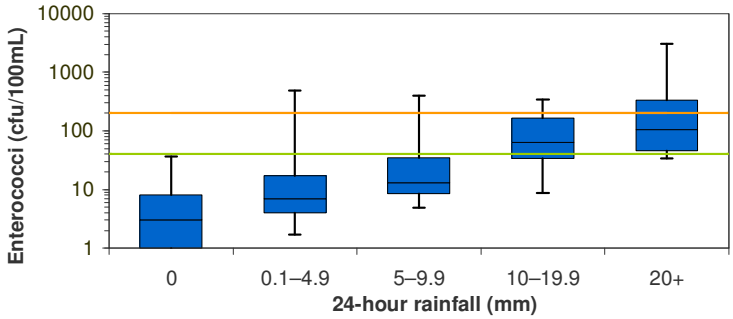
Microbial Assessment: **B**

Monitoring period for 2012–13 result is December 2010 to April 2013.

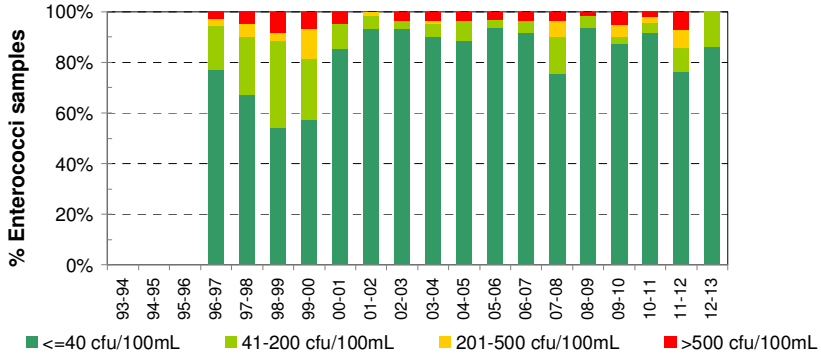


Response to rainfall

Rainfall from Gladesville rain gauge



Trends in enterococci data through time



Woolwich Baths

Beach Suitability Grade: **Fair**

See 'How to read this report' for key to map

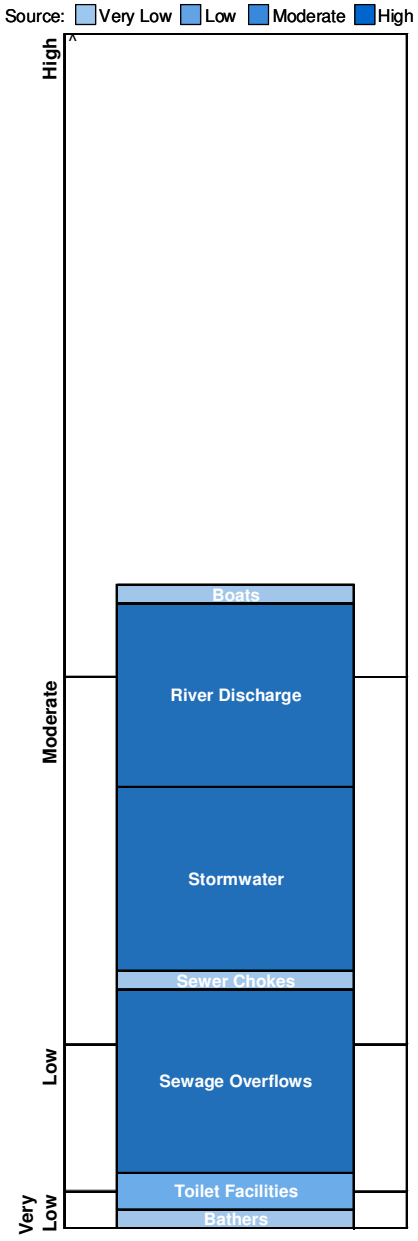
Woolwich Baths are a 20 by 30 metre netted swimming area in the lower Lane Cove River. The baths are backed by a narrow sandy beach and are adjacent to a reserve.

The Beach Suitability Grade of Fair indicates that water quality is occasionally susceptible to faecal pollution, usually triggered by rainfall, with potential faecal contamination from stormwater, sewage overflows and discharge from the Lane Cove River.

The response to rainfall graph indicates that enterococci levels increased with increasing rainfall, frequently exceeding the safe swimming limit in response to 10 mm of rainfall or more.

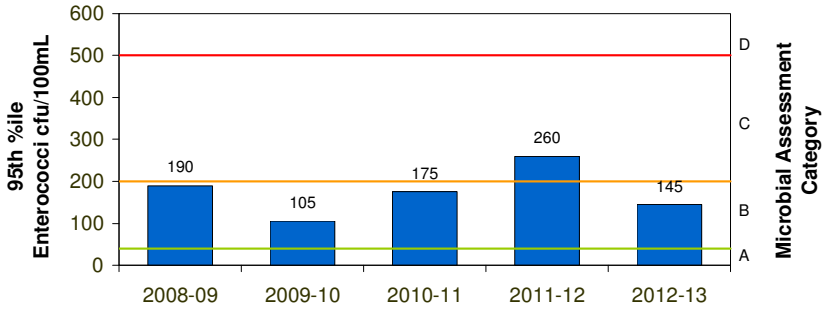
The site has been monitored since 1994. Microbial water quality has generally improved since 2000–2001 owing to licensing of discharges from the sewerage system and improved management of stormwater.

Sanitary Inspection: **High**



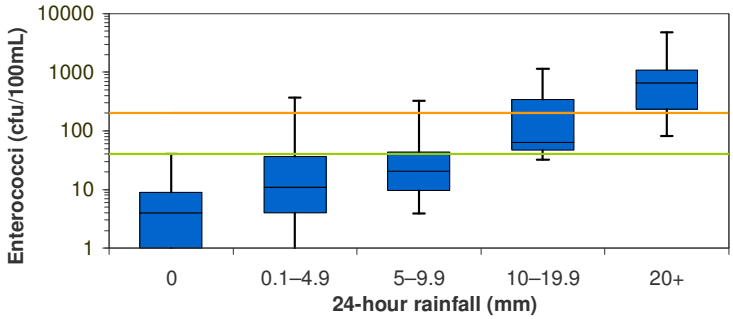
Microbial Assessment: **B**

Monitoring period for 2012–13 result is December 2010 to April 2013.

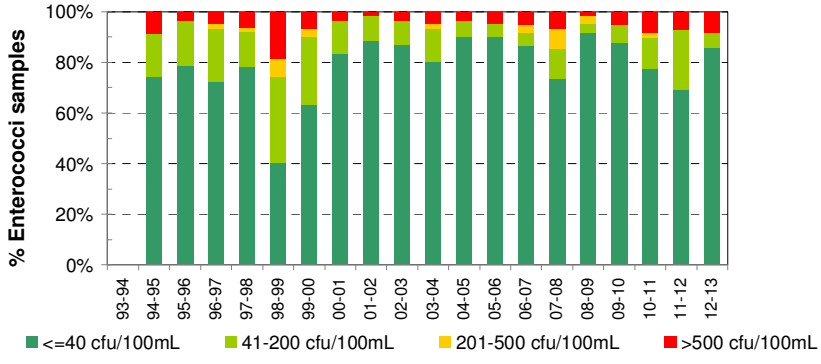


Response to rainfall

Rainfall from Gladesville rain gauge



Trends in enterococci data through time



Tambourine Bay

Beach Suitability Grade: **Poor**

See 'How to read this report' for key to map

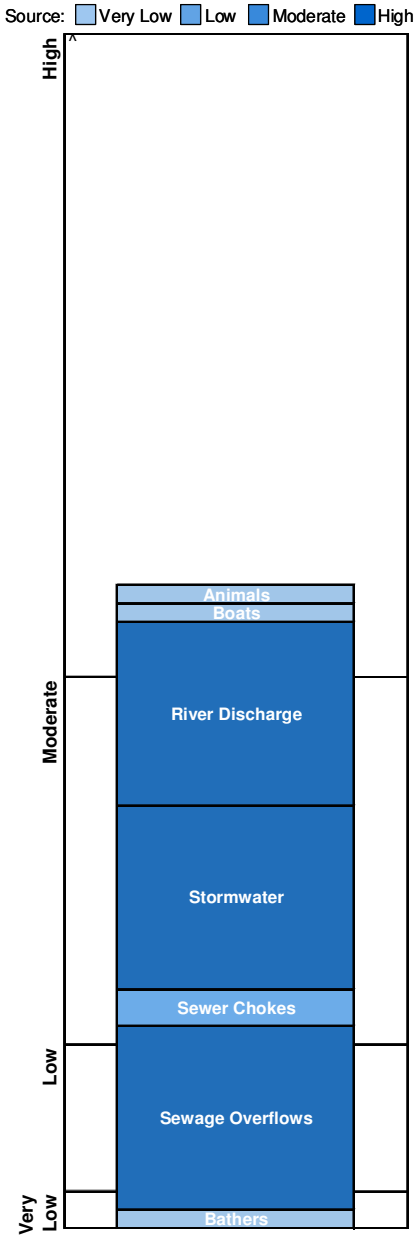
This pool is in Tambourine Bay in the lower Lane Cove River. It is backed by parklands with picnic and barbeque facilities and a playground. Lane Cove Council has currently closed the baths and the long-term future of the site is yet to be determined.

The Beach Suitability Grade of Poor indicates that microbial water quality is influenced by faecal pollution, usually triggered by rainfall, with potential faecal contamination from stormwater, sewage overflows and discharge from the Lane Cove River.

The response to rainfall graph indicates that enterococci levels increased with increasing rainfall, often exceeding the safe swimming limit in response to light rain, and usually after 10 mm of rainfall or more.

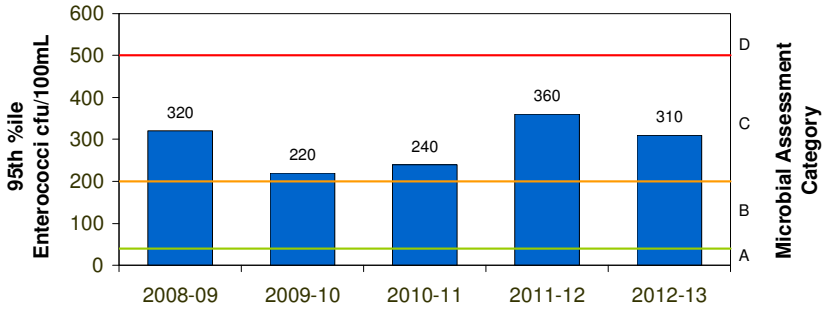
The site has been monitored since 1994. Microbial water quality has generally improved since 2000–2001 owing to licensing of discharges from the sewerage system and improved management of stormwater.

Sanitary Inspection: **High**



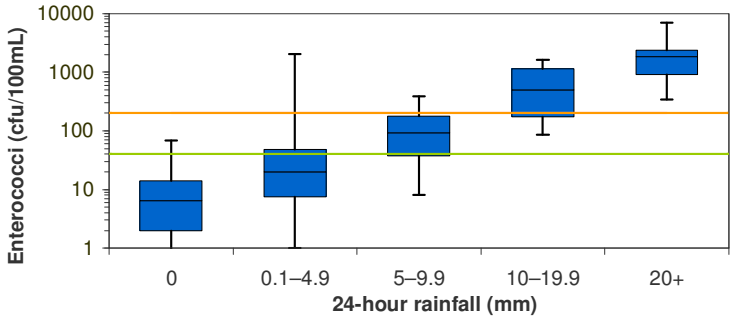
Microbial Assessment: **C**

Monitoring period for 2012–13 result is December 2010 to April 2013.

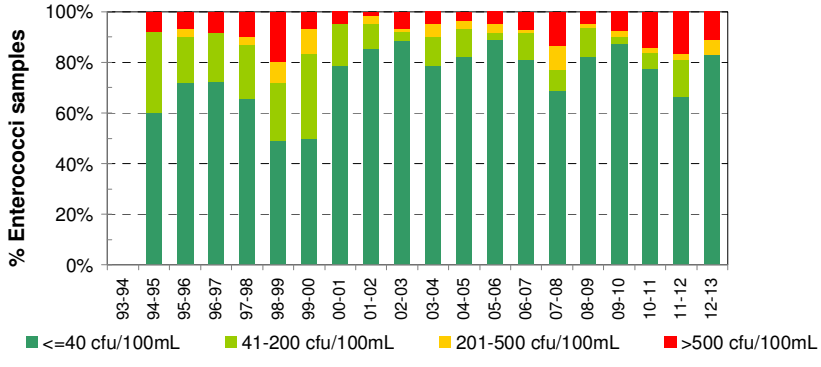


Response to rainfall

Rainfall from Gladesville rain gauge



Trends in enterococci data through time



Woodford Bay

Beach Suitability Grade: **Good**

See 'How to read this report' for key to map

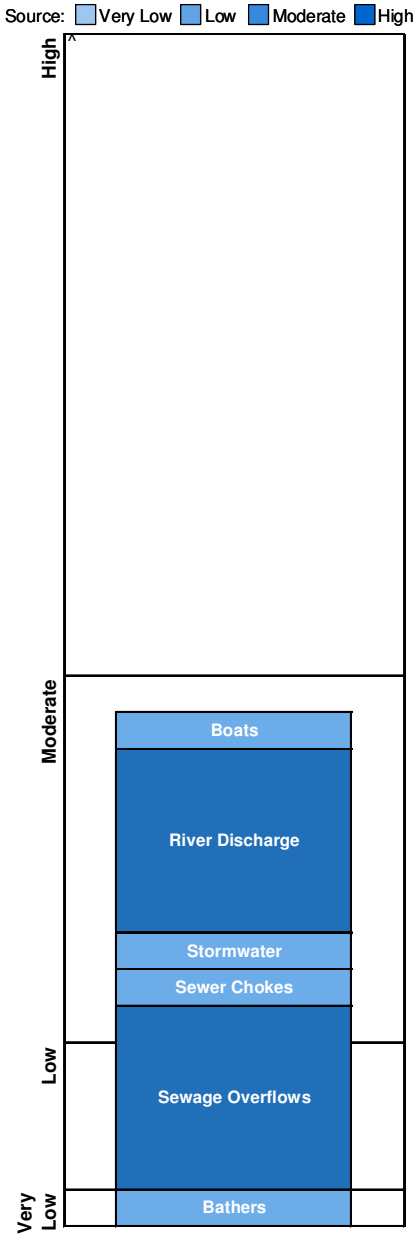
This site is a 20 by 25 metre enclosed swimming area on the western side of Woodford Bay in the lower Lane Cove River. The swimming area is backed by a narrow sandy beach and park.

The Beach Suitability Grade of Good indicates that microbial water quality is suitable for swimming most of the time but the water may be susceptible to pollution from several potential sources of faecal contamination.

The response to rainfall graph indicates that enterococci levels increased with increasing rainfall, regularly exceeding the safe swimming limit in response to 10 mm of rainfall or more.

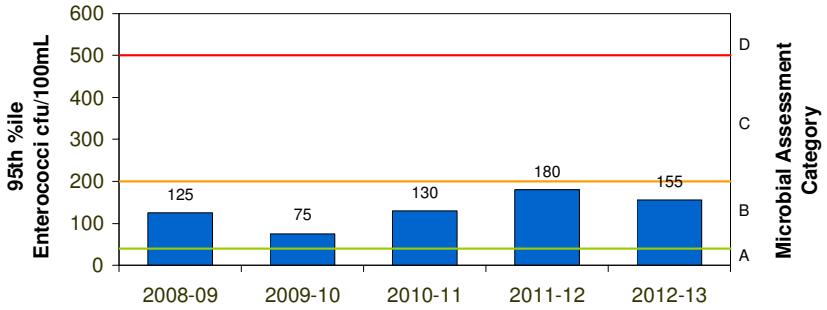
The site has been monitored since 1994. Microbial water quality has improved slightly since 2000–2001 owing to licensing of discharges from the sewerage system and improved management of stormwater.

Sanitary Inspection: **Moderate**



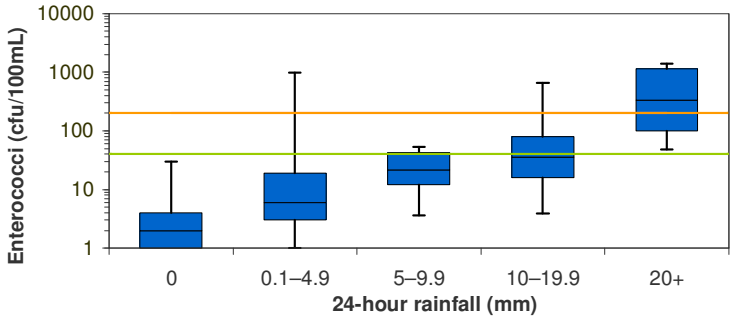
Microbial Assessment: **B**

Monitoring period for 2012–13 result is December 2010 to April 2013.

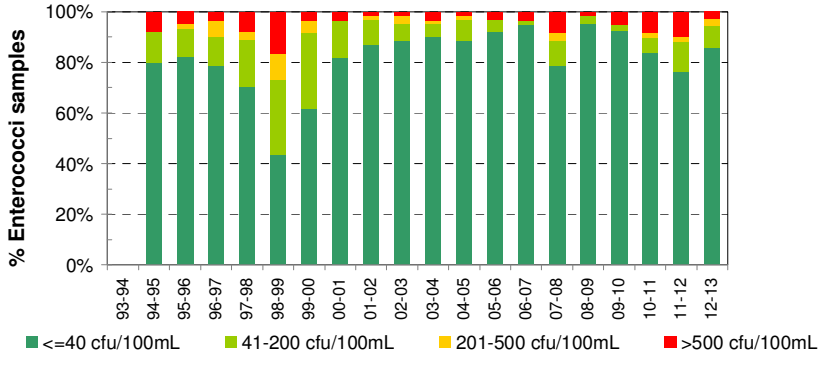


Response to rainfall

Rainfall from Gladesville rain gauge



Trends in enterococci data through time



Greenwich Baths

Beach Suitability Grade: **Good**

See 'How to read this report' for key to map

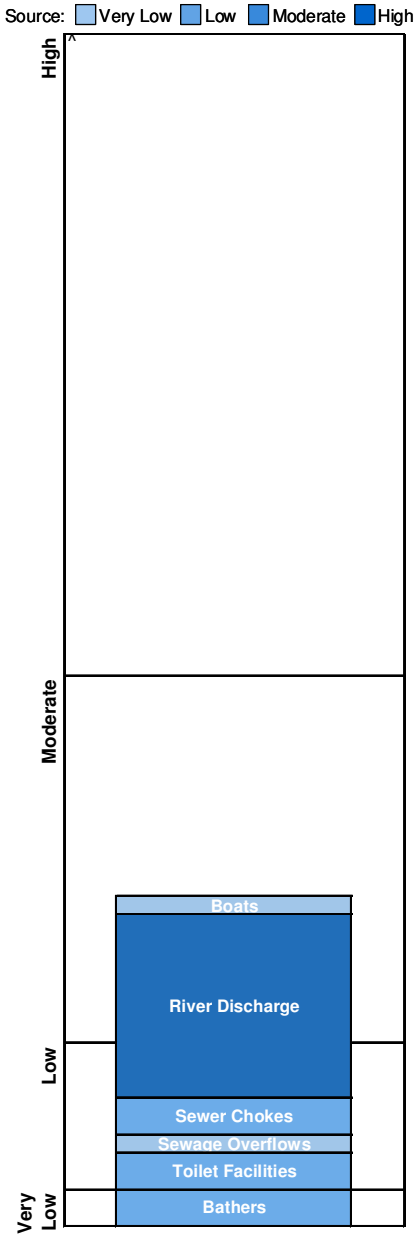
Greenwich Baths are a 40 metre long netted swimming area backed by a sandy beach. The baths are next to a park and are open during the swimming season. There are toilet and shower facilities and a kiosk.

The Beach Suitability Grade of Good indicates that microbial water quality is suitable for swimming most of the time but the water may be susceptible to pollution from several potential sources of faecal contamination, including discharge from Lane Cove River.

The response to rainfall graph indicates that enterococci levels increased with increasing rainfall, often exceeding the safe swimming limit in response to 5 mm of rainfall or more.

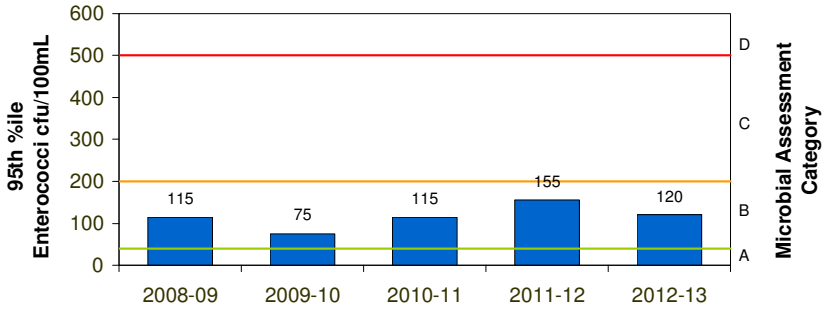
The site has been monitored since 1994. Microbial water quality has generally improved since 2000–2001 owing to licensing of discharges from the sewerage system and improved management of stormwater.

Sanitary Inspection: **Moderate**



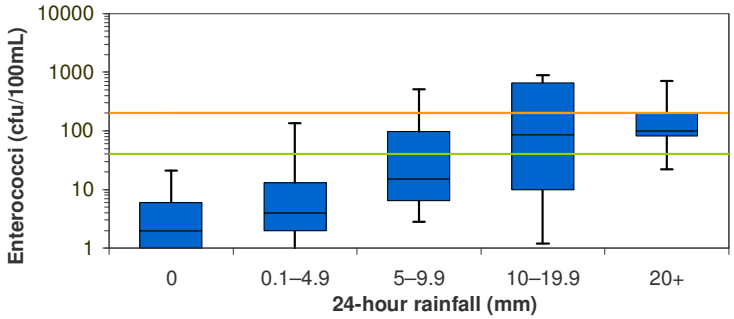
Microbial Assessment: **B**

Monitoring period for 2012–13 result is December 2010 to April 2013.

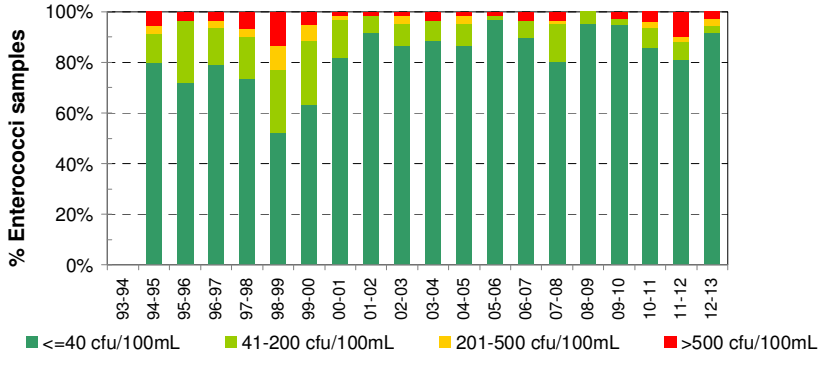


Response to rainfall

Rainfall from Lilyfield rain gauge



Trends in enterococci data through time



Hayes Street Beach

Beach Suitability Grade: **Good**

See 'How to read this report' for key to map

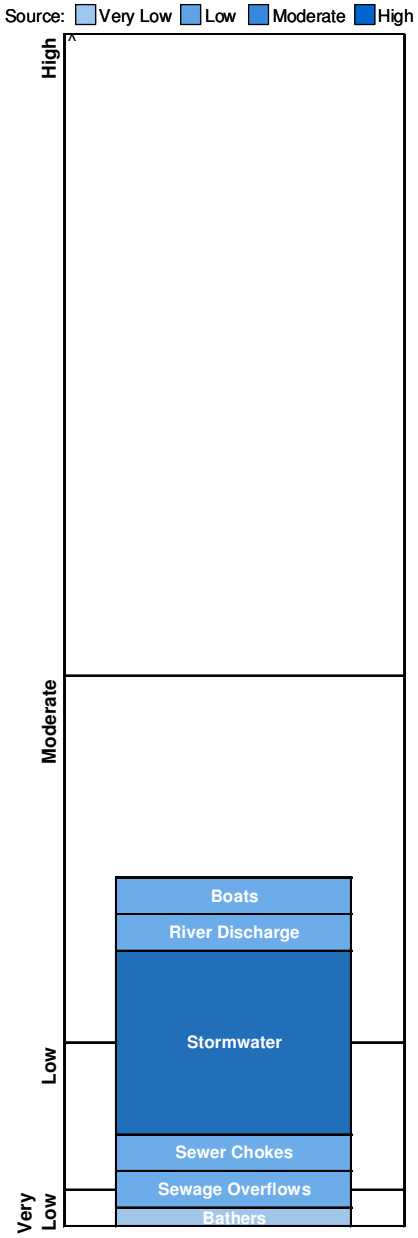
Hayes Street Beach is approximately 50 metres long and is located adjacent to the Hayes Street Ferry Wharf in Neutral Bay. The area is not netted.

The Beach Suitability Grade of Good indicates that the water quality is safe for swimming most of the time but can be susceptible to pollution from several potential sources of contamination.

The response to rainfall graph indicates that enterococci levels increased with increasing rainfall, regularly exceeding the safe swimming limit in response to 5 mm of rainfall or more.

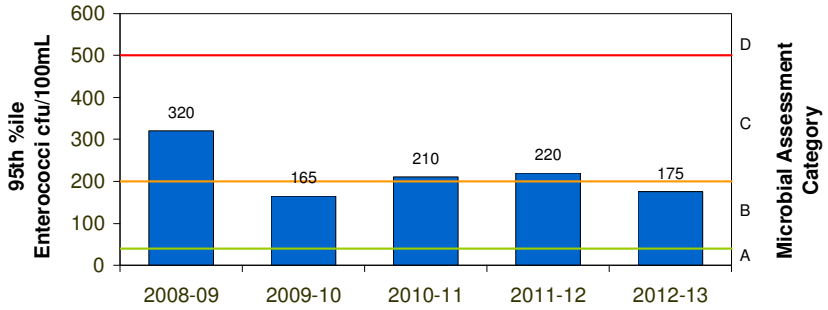
The site has been monitored since 1994.

Sanitary Inspection: **Moderate**



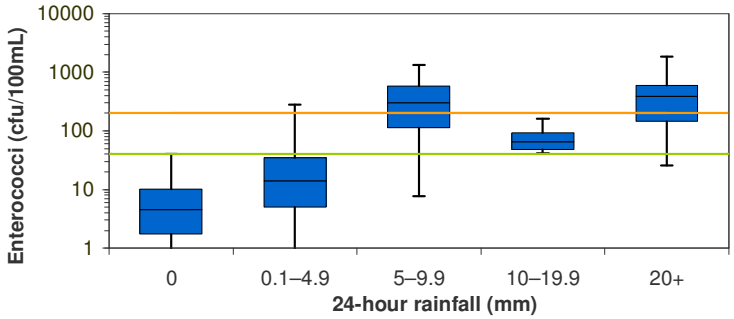
Microbial Assessment: **B**

Monitoring period for 2012–13 result is December 2010 to April 2013.

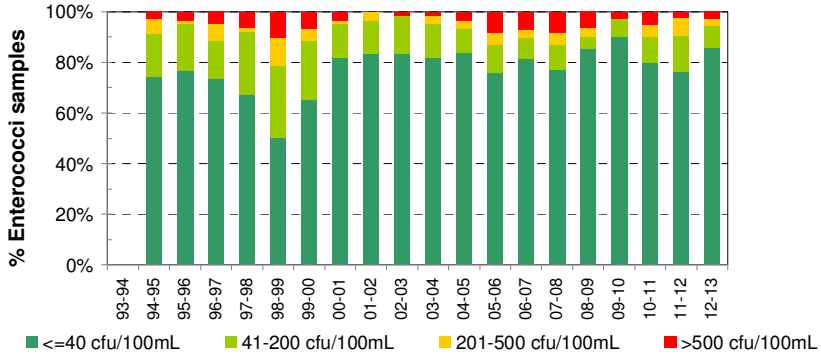


Response to rainfall

Rainfall from Mosman rain gauge



Trends in enterococci data through time



Clifton Gardens

Beach Suitability Grade: **Good**

See 'How to read this report' for key to map

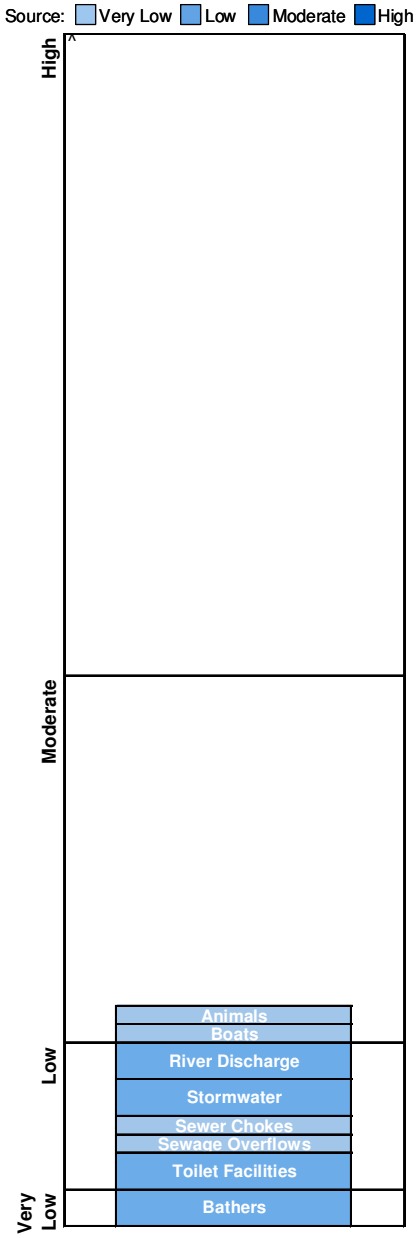
Clifton Gardens is a large netted swimming area at the western end of a 250 metre long beach in Chowder Bay. The beach is backed by Sydney Harbour National Park and a park with picnic and toilet facilities.

The Beach Suitability Grade of Good indicates that microbial water quality is suitable for swimming most of the time but the water may be susceptible to pollution from several minor sources of faecal contamination.

The response to rainfall graph indicates that enterococci levels increased with increasing rainfall, often exceeding the safe swimming limit in response to 5 mm of rainfall or more.

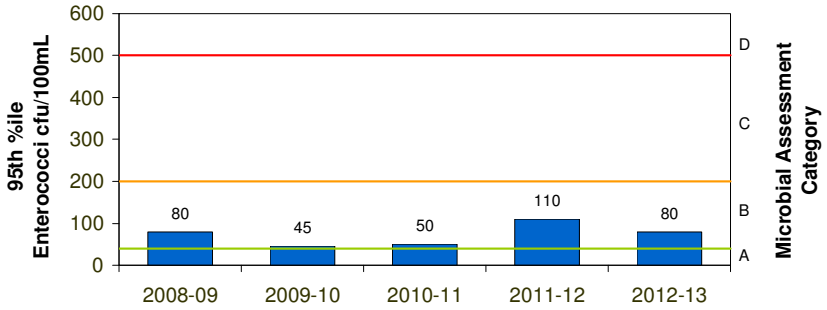
The site has been monitored since 1994. Microbial water quality has generally improved since 2000–2001 due to licensing of discharges from the sewerage system and improved management of stormwater.

Sanitary Inspection: **Moderate**



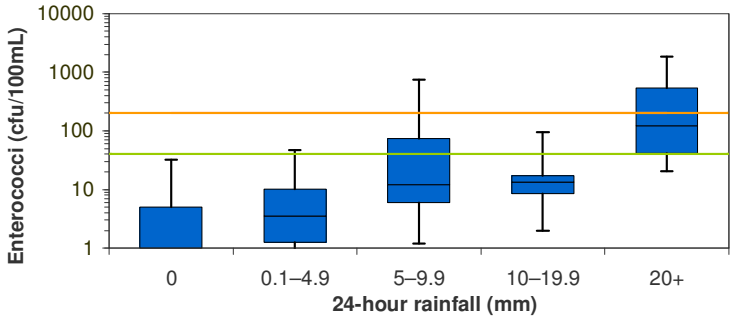
Microbial Assessment: **B**

Monitoring period for 2012–13 result is December 2010 to April 2013.

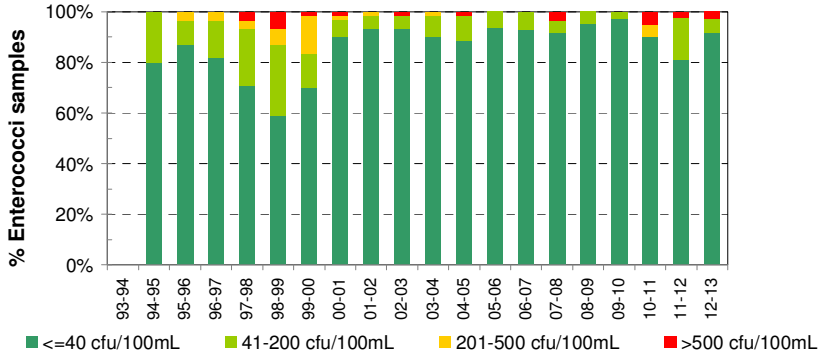


Response to rainfall

Rainfall from Mosman rain gauge



Trends in enterococci data through time



Balmoral Baths

Beach Suitability Grade: **Good**

See 'How to read this report' for key to map

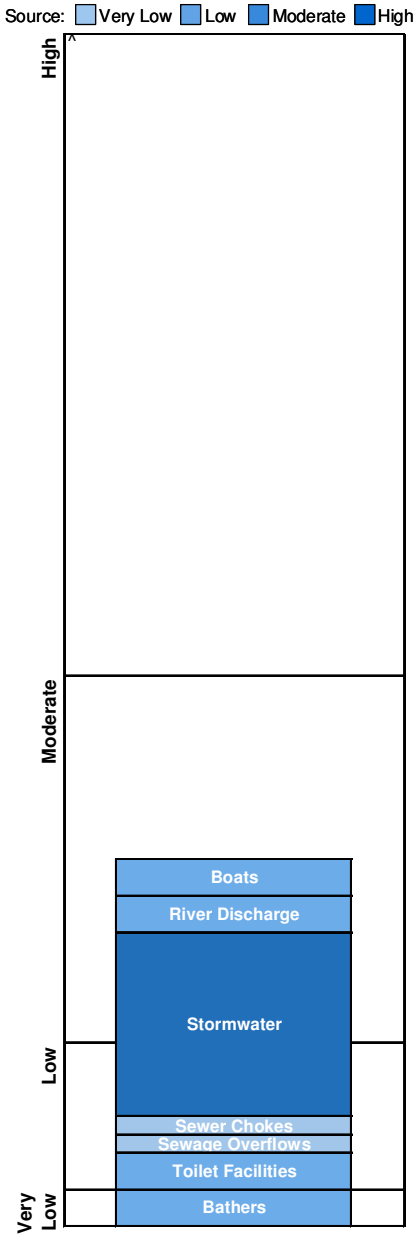
Balmoral Baths are a netted swimming area towards the eastern end of Balmoral Beach, backed by a park with picnic and toilet facilities.

The Beach Suitability Grade of Good indicates that microbial water quality is suitable for swimming most of the time but the water may be susceptible to pollution from a number of potential sources of faecal contamination, including stormwater.

The response to rainfall graph indicates that enterococci levels generally increased with increasing rainfall, regularly exceeding the safe swimming limit in response to 5 mm of rainfall or more.

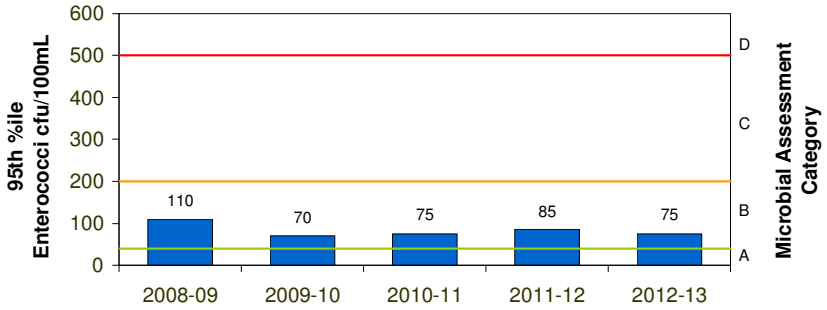
The site has been monitored since 1994. Microbial water quality has generally improved since 2000–2001 owing to licensing of discharges from the sewerage system and improved management of stormwater.

Sanitary Inspection: **Moderate**



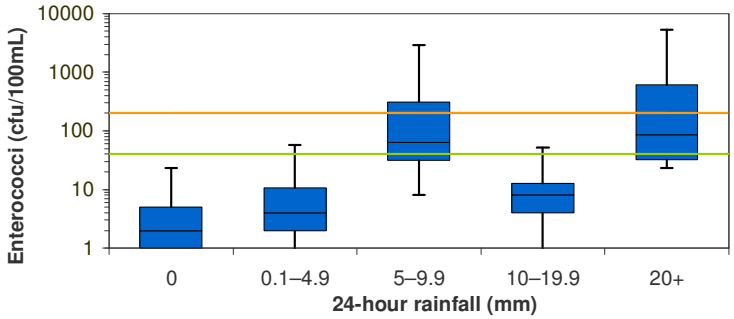
Microbial Assessment: **B**

Monitoring period for 2012–13 result is December 2010 to April 2013.

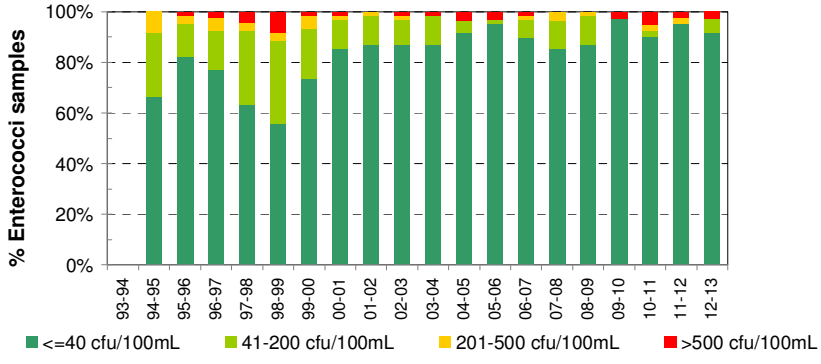


Response to rainfall

Rainfall from Mosman rain gauge



Trends in enterococci data through time



Edwards Beach

Beach Suitability Grade: **Good**

See 'How to read this report' for key to map

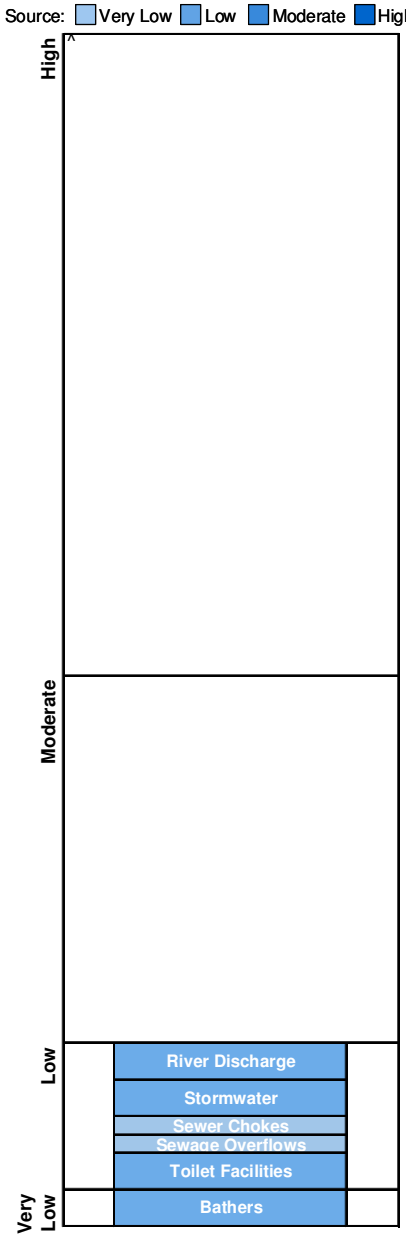
Edwards Beach is a popular swimming area located at the southern end of the beach backed by a walking track, park and café facilities.

The Beach Suitability Grade of Good indicates that microbial water quality is suitable for swimming most of the time but the water may be susceptible to pollution from a number of potential sources of faecal contamination.

The response to rainfall graph indicates that enterococci levels increased slightly with increasing rainfall, often exceeding the safe swimming limit in response to 5 mm of rainfall.

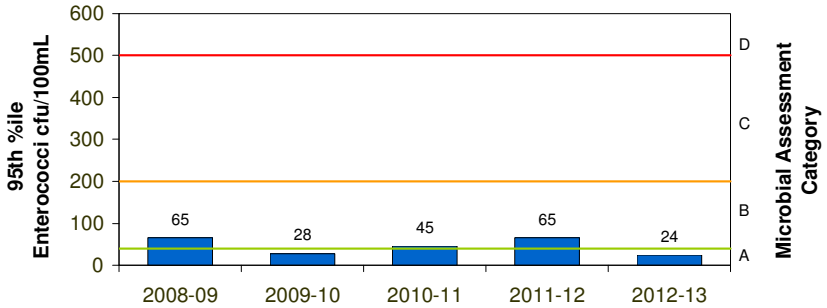
The site has been monitored since 1994. Microbial water quality has generally improved since 2000–2001 owing to licensing of discharges from the sewerage system and improved management of stormwater.

Sanitary Inspection: **Moderate**



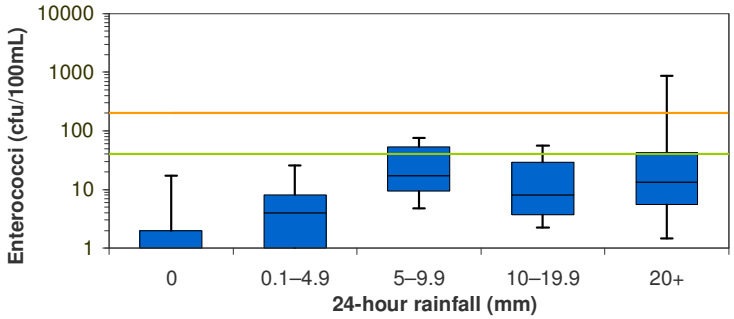
Microbial Assessment: **A**

Monitoring period for 2012–13 result is December 2010 to April 2013.

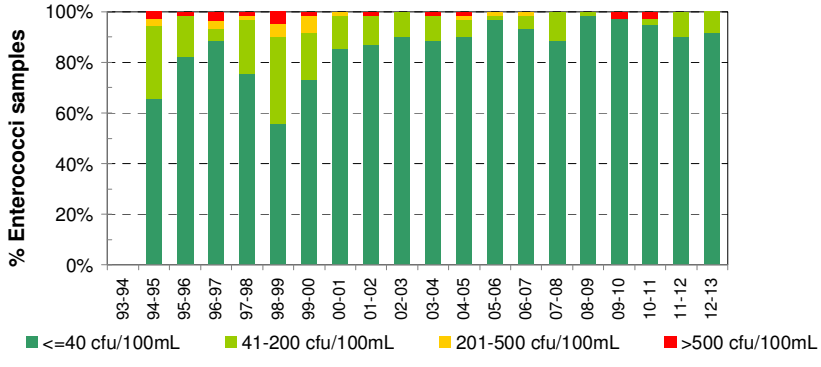


Response to rainfall

Rainfall from Mosman rain gauge



Trends in enterococci data through time



Chinamans Beach

Beach Suitability Grade: **Good**

See 'How to read this report' for key to map

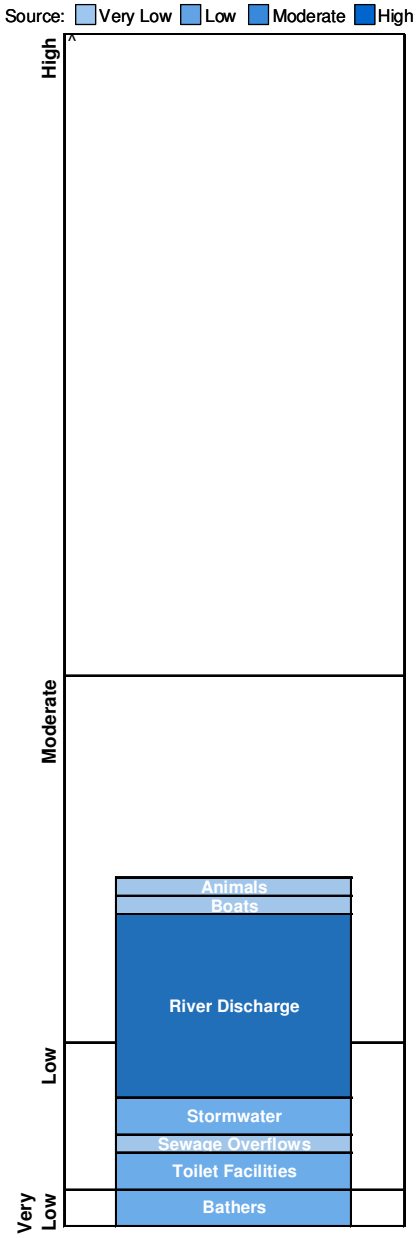
Chinamans Beach is approximately 250 metres long and is a popular swimming area in Middle Harbour. It is backed by Rosherville Reserve.

The Beach Suitability Grade of Good indicates that microbial water quality is suitable for swimming most of the time but the water may be susceptible to pollution from a number of potential sources of faecal contamination, including discharge from Middle Harbour.

The response to rainfall graph indicates that enterococci levels increased with increasing rainfall, often exceeding the safe swimming limit in response to 5 mm of rainfall or more.

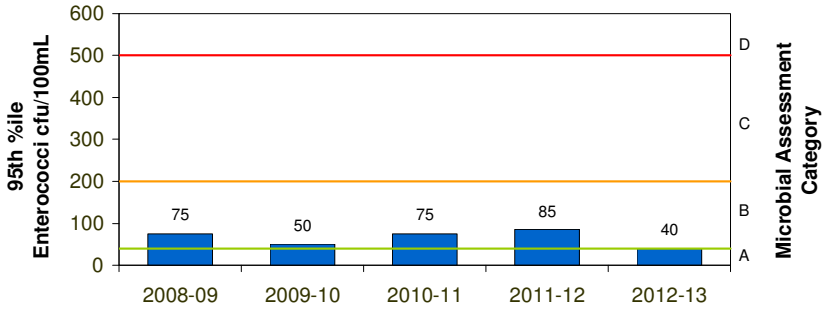
The site has been monitored since 1998. Microbial water quality has generally improved since 2000–2001 owing to licensing of discharges from the sewerage system and improved management of stormwater.

Sanitary Inspection: **Moderate**



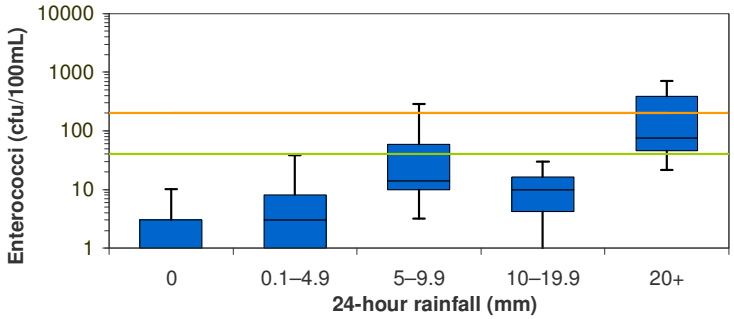
Microbial Assessment: **A**

Monitoring period for 2012–13 result is December 2010 to April 2013.

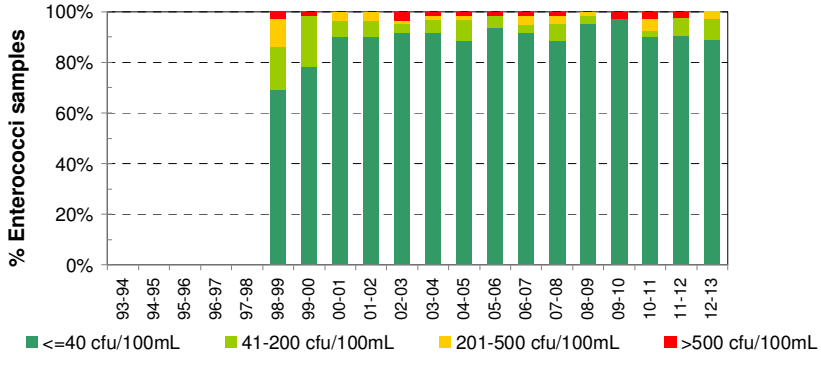


Response to rainfall

Rainfall from Mosman rain gauge

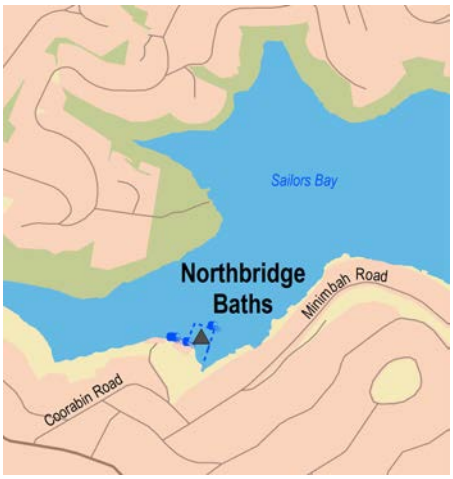


Trends in enterococci data through time



Northbridge Baths

Beach Suitability Grade: **Poor**



See 'How to read this report' for key to map

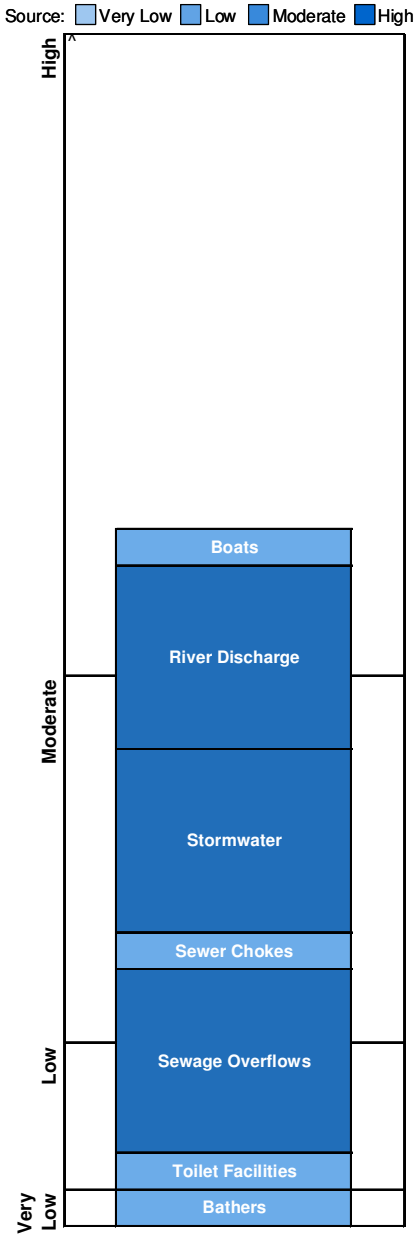
Northbridge Baths are a 30 by 65 metre enclosed swimming area in Sailors Bay, Middle Harbour. The baths are open year round; however, installed signage advises not to swim during rain and up to 48 hours after rainfall.

The Beach Suitability Grade of Poor indicates that microbial water quality is influenced by faecal pollution, particularly after rainfall, with potential faecal contamination from stormwater, sewage overflows and upstream sources in Middle Harbour.

The response to rainfall graph indicates that enterococci levels increased with increasing rainfall, often exceeding the safe swimming limit in response to only light rainfall, and frequently after 5 mm or more.

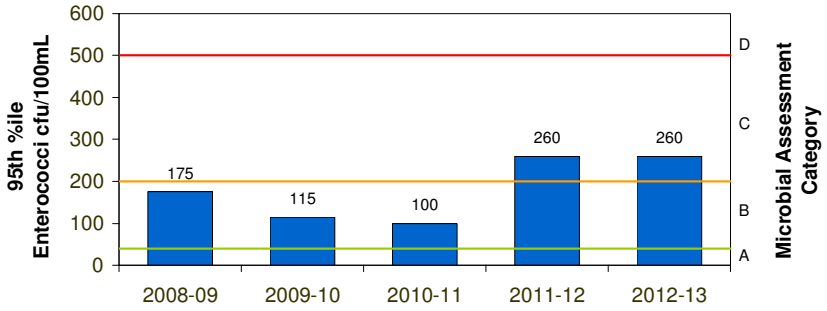
The site has been monitored since 1994. Microbial water quality has improved slightly since 2000–2001 owing to licensing of discharges from the sewerage system and improved management of stormwater.

Sanitary Inspection: **High**



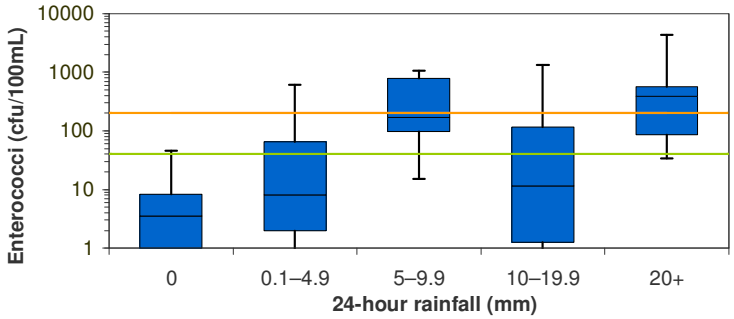
Microbial Assessment: **C**

Monitoring period for 2012–13 result is December 2010 to April 2013.

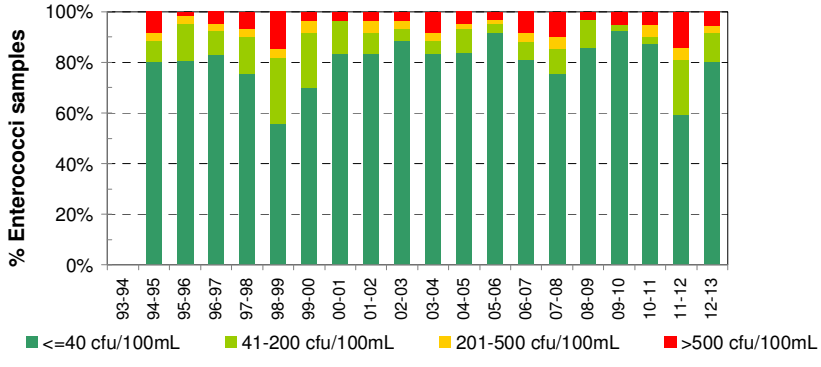


Response to rainfall

Rainfall from Mosman rain gauge



Trends in enterococci data through time



Davidson Reserve

Beach Suitability Grade: **Poor**

See 'How to read this report' for key to map

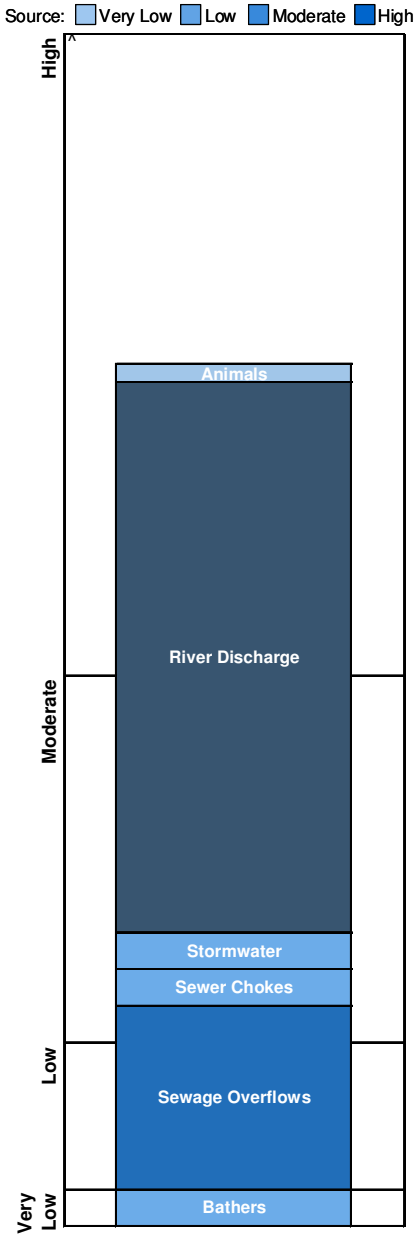
Davidson Reserve is a 25 metre long netted swimming area situated within Garigal National Park. The beach is backed by a reserve with picnic facilities.

The Beach Suitability Grade of Poor indicates that the water quality is susceptible to faecal pollution, particularly after rainfall and occasionally during dry weather conditions, with potential faecal contamination from sewer chokes and sewage overflows and upstream sources in Middle Harbour.

The response to rainfall graph indicates that enterococci levels increased with increasing rainfall, often exceeding the safe swimming limit in response to only light rainfall and usually after 5 mm or more.

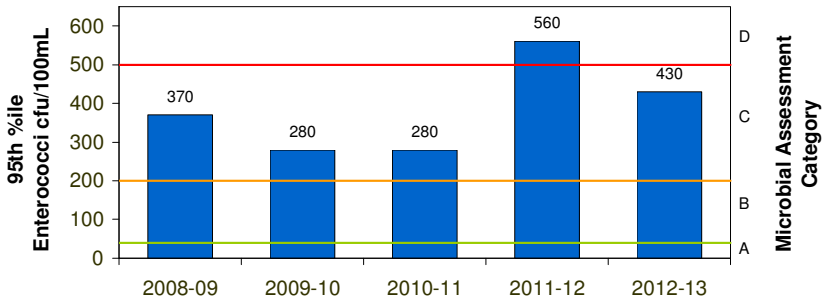
The site has been monitored since 1994.

Sanitary Inspection: **High**



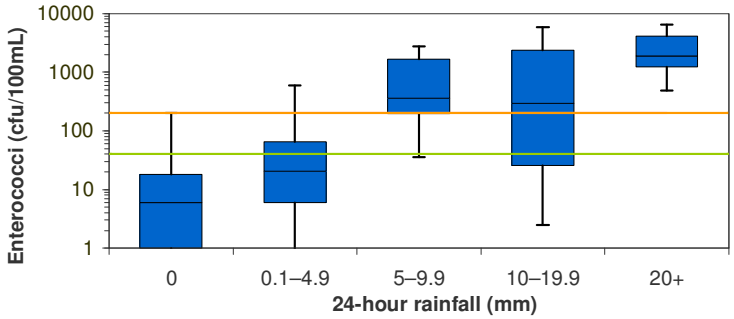
Microbial Assessment: **C**

Monitoring period for 2012–13 result is December 2010 to April 2013.

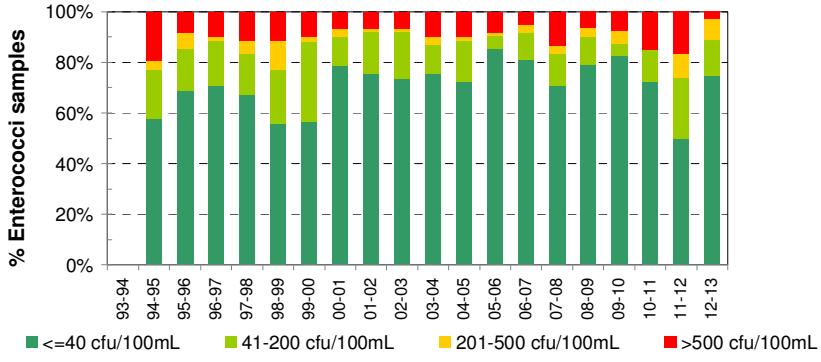


Response to rainfall

Rainfall from Mosman rain gauge



Trends in enterococci data through time



Gurney Crescent Baths

Beach Suitability Grade: **Poor**

See 'How to read this report' for key to map

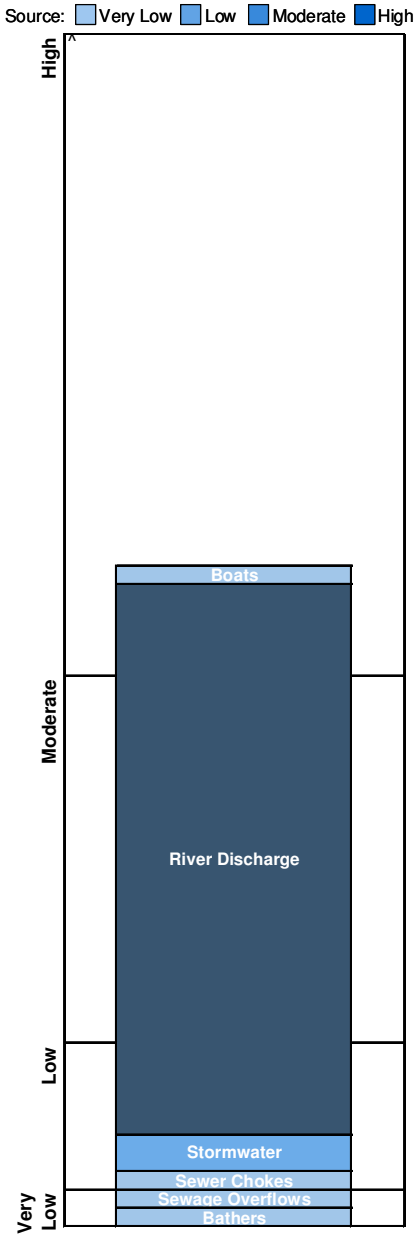
Gurney Crescent Baths are a 20 metre square netted swimming area located at Pickering Point, Middle Harbour. The baths are backed by a bush reserve and are not a popular swimming location.

The Beach Suitability Grade of Poor indicates that the water quality is susceptible to faecal pollution, particularly after rainfall and occasionally during dry weather conditions, with potential faecal contamination from discharge from Middle Harbour.

The response to rainfall graph indicates that enterococci levels increased with increasing rainfall, frequently exceeding the safe swimming limit in response to 5 mm of rainfall or more.

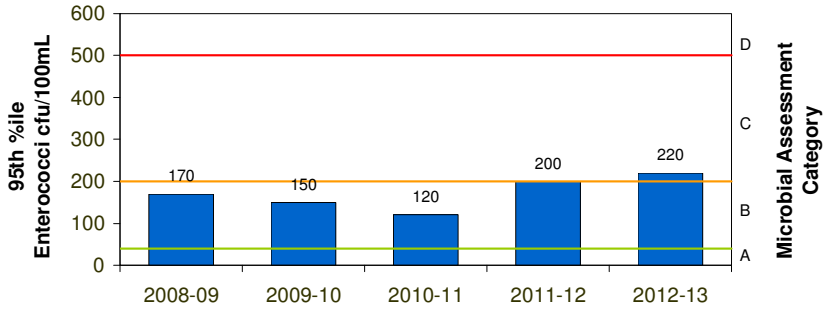
The site has been monitored since 1996.

Sanitary Inspection: **High**



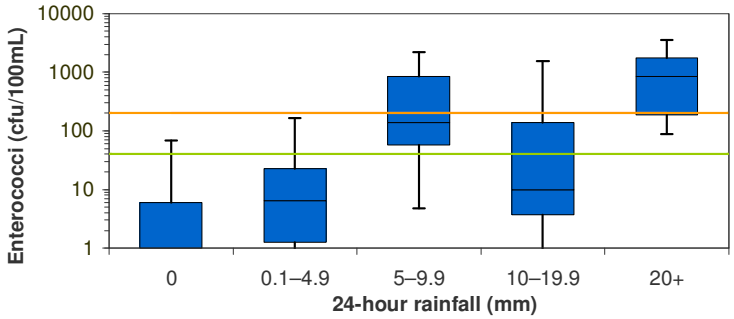
Microbial Assessment: **C**

Monitoring period for 2012–13 result is December 2010 to April 2013.

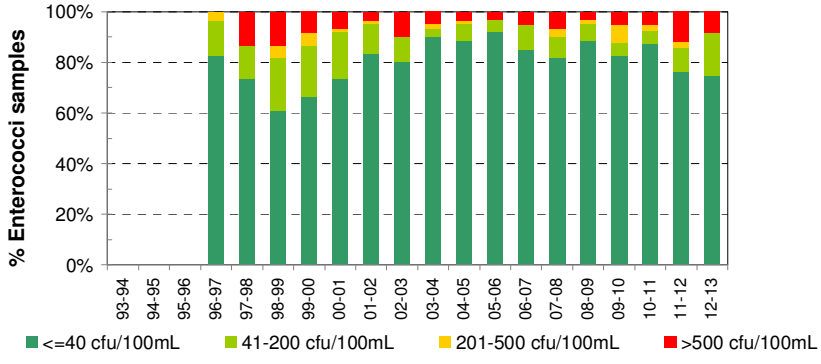


Response to rainfall

Rainfall from Mosman rain gauge



Trends in enterococci data through time



Clontarf Pool

Beach Suitability Grade: **Fair**

See 'How to read this report' for key to map

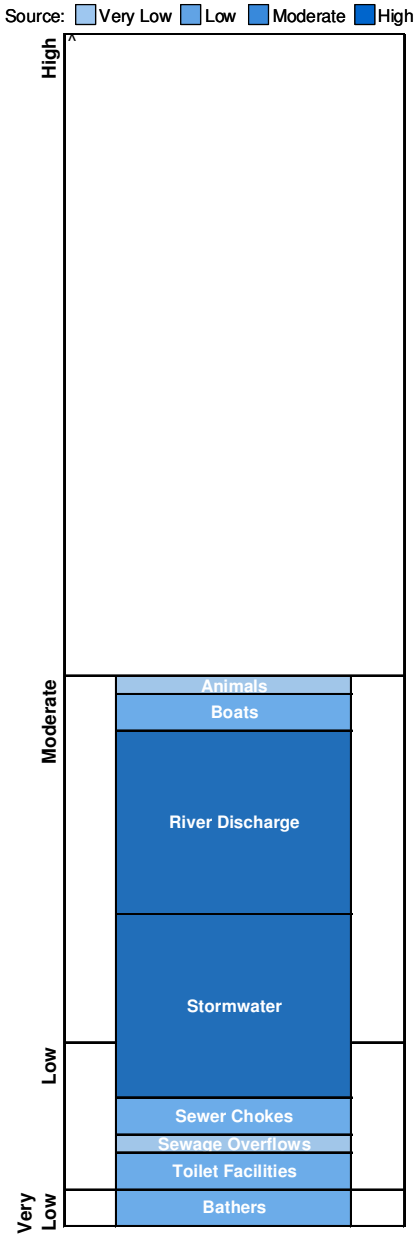
Clontarf Pool is a small netted swimming area accessed via Clontarf Reserve. The pool is backed by a narrow sandy beach and a park with a picnic area, barbeque facilities and a playground.

The Beach Suitability Grade of Fair indicates that microbial water quality is occasionally influenced by faecal pollution, usually triggered by rainfall, with several potential sources of faecal contamination including river discharge and stormwater.

The response to rainfall graph indicates that enterococci levels increased with increasing rainfall, often exceeding the safe swimming limit in response to 5 mm of rainfall or more.

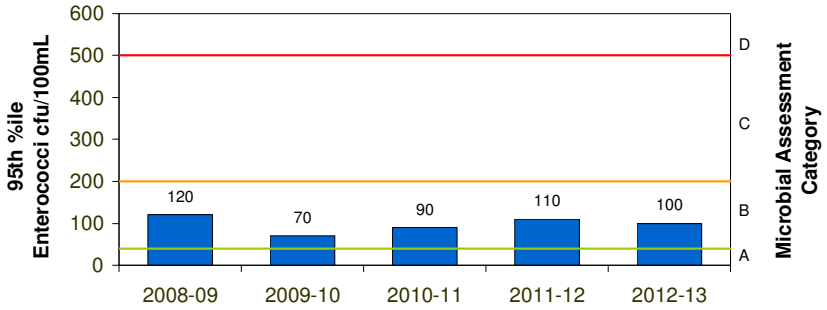
The site has been monitored since 1994. Microbial water quality has improved slightly since 2000–2001 owing to licensing of discharges from the sewerage system and improved management of stormwater.

Sanitary Inspection: **High**



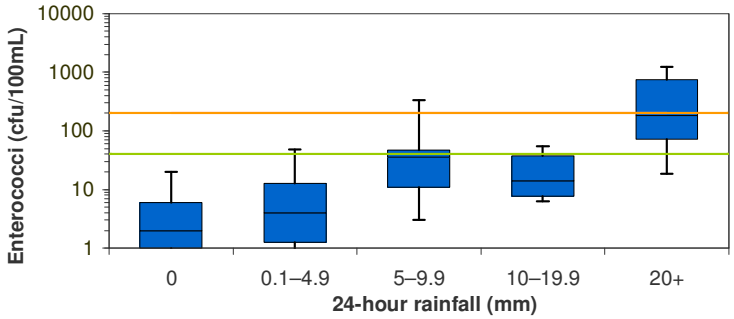
Microbial Assessment: **B**

Monitoring period for 2012–13 result is December 2010 to April 2013.

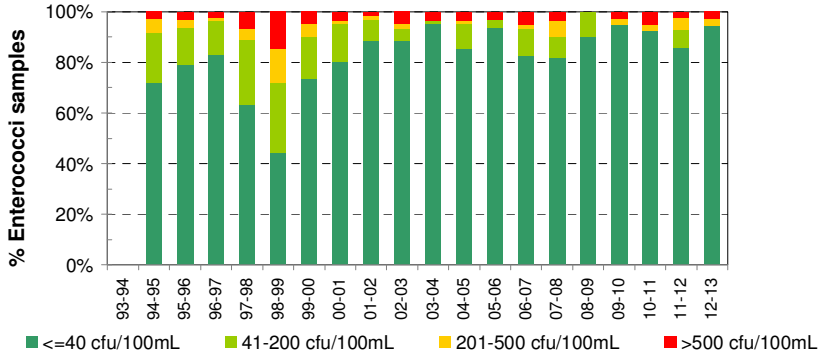


Response to rainfall

Rainfall from Mosman rain gauge



Trends in enterococci data through time



Forty Baskets Pool

Beach Suitability Grade: **Good**

See 'How to read this report' for key to map

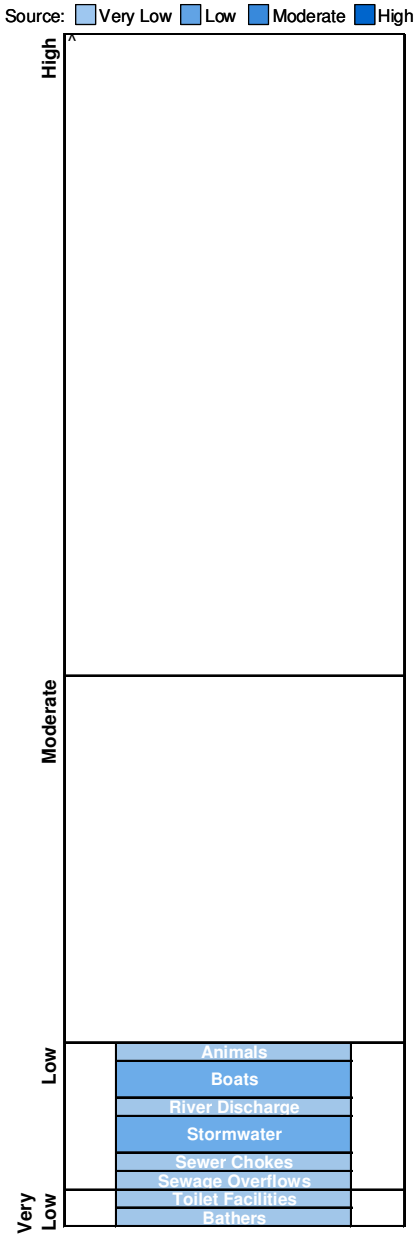
Forty Baskets Pool is a 20 by 40 metre netted swimming area at the northern end of Forty Baskets Beach in North Harbour. The beach is backed by boat storage and a small park with barbeque facilities.

The Beach Suitability Grade of Good indicates that microbial water quality is suitable for swimming most of the time but the water may be susceptible to pollution from a number of potential sources of minor faecal contamination.

The response to rainfall graph indicates that enterococci levels increased with increasing rainfall, frequently exceeding the safe swimming limit in response to 20 mm of rainfall or more.

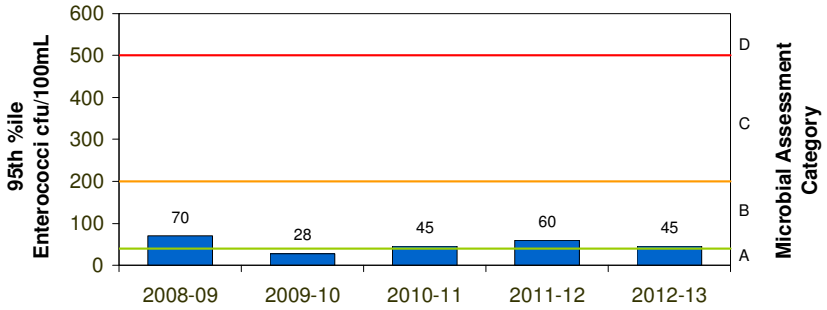
The site has been monitored since 1994. Microbial water quality has improved slightly since 2000–2001 owing to licensing of discharges from the sewerage system and improved management of stormwater.

Sanitary Inspection: **Moderate**



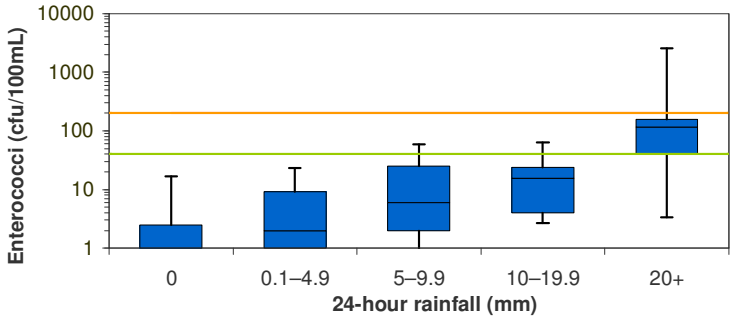
Microbial Assessment: **B**

Monitoring period for 2012–13 result is December 2010 to April 2013.

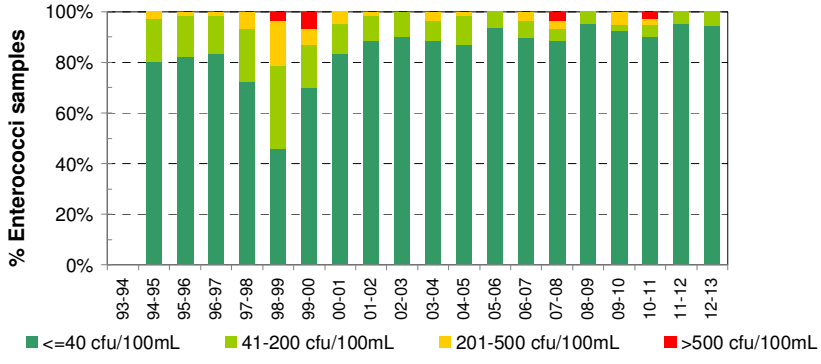


Response to rainfall

Rainfall from Manly rain gauge



Trends in enterococci data through time



Fairlight Beach

Beach Suitability Grade: **Good**

See 'How to read this report' for key to map

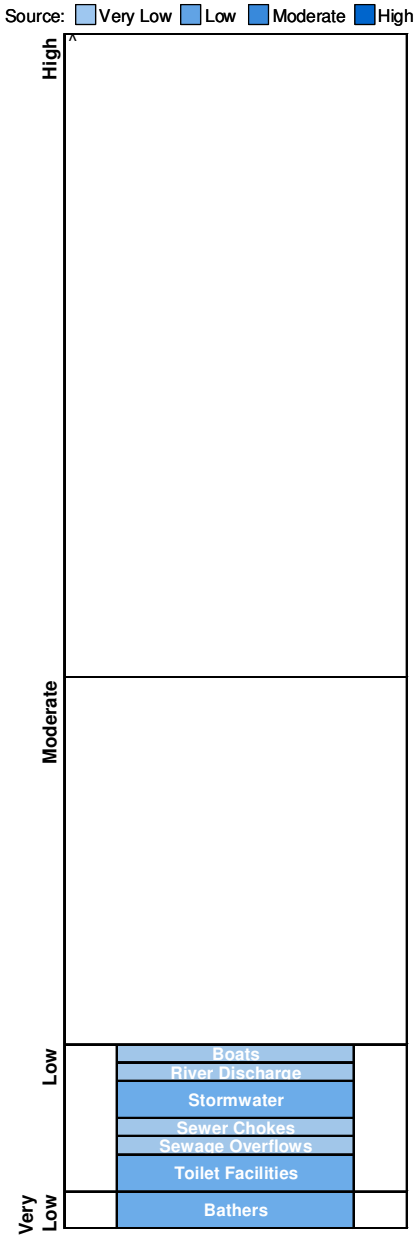
Fairlight Beach is a narrow beach located in North Harbour. The beach is backed by a small reserve and picnic area. A 25 metre pool filled with water from the harbour is adjacent to the beach.

The Beach Suitability Grade of Good indicates that microbial water quality is suitable for swimming most of the time but the water may be susceptible to pollution from a number of minor sources of faecal contamination.

The response to rainfall graph indicates that enterococci levels generally increased with increasing rainfall, often exceeding the safe swimming limit in response to 20 mm of rainfall or more.

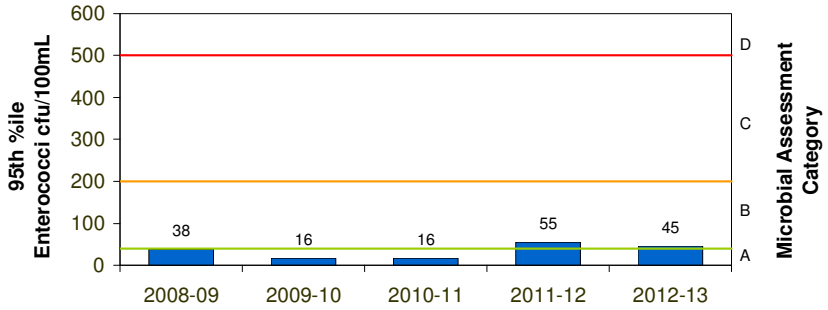
The site has been monitored since 1996. Microbial water quality has generally improved since 2000–2001 owing to licensing of discharges from the sewerage system and improved management of stormwater.

Sanitary Inspection: **Moderate**



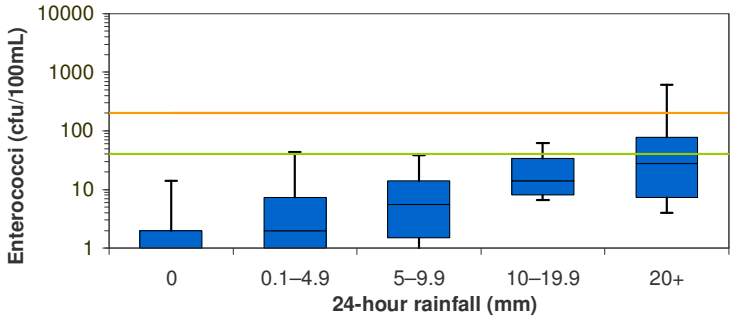
Microbial Assessment: **B**

Monitoring period for 2012–13 result is December 2010 to April 2013.

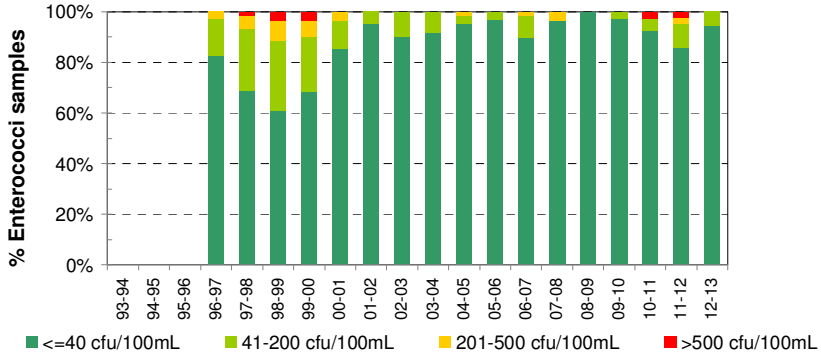


Response to rainfall

Rainfall from Manly rain gauge



Trends in enterococci data through time



Manly Cove

Beach Suitability Grade: **Good**

See 'How to read this report' for key to map

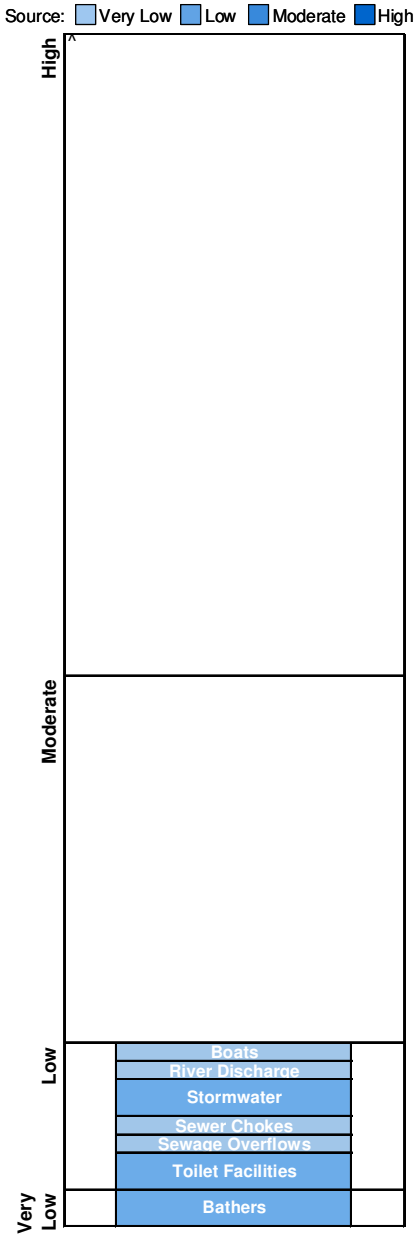
Manly Cove is a netted swimming enclosure near the centre of the 250 metre long beach that stretches to the west of the Manly Ferry Terminal. The beach is backed by a walking track and park.

The Beach Suitability Grade of Good indicates that microbial water quality is suitable for swimming most of the time but the water may be susceptible to pollution from a number of minor sources of faecal contamination.

The response to rainfall graph indicates that enterococci levels generally increased with increasing rainfall, frequently exceeding the safe swimming limit in response to 20 mm of rainfall or more.

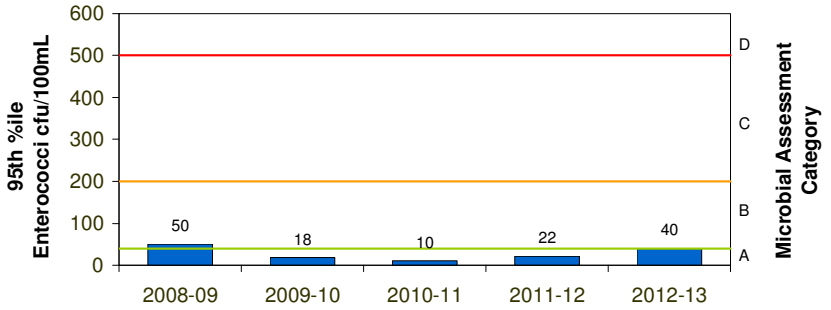
The site has been monitored since 1994. Microbial water quality has generally improved since 2000–2001 owing to licensing of discharges from the sewerage system and improved management of stormwater.

Sanitary Inspection: **Moderate**



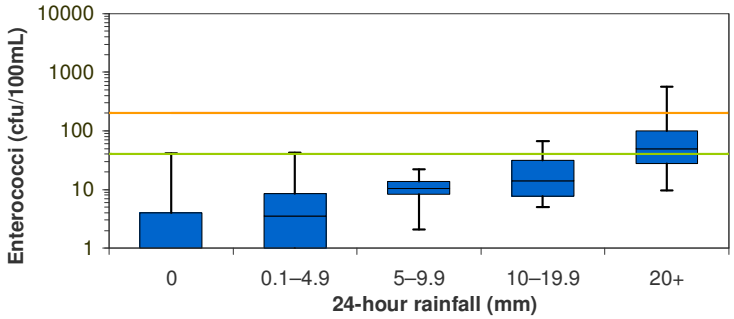
Microbial Assessment: **A**

Monitoring period for 2012–13 result is December 2010 to April 2013.

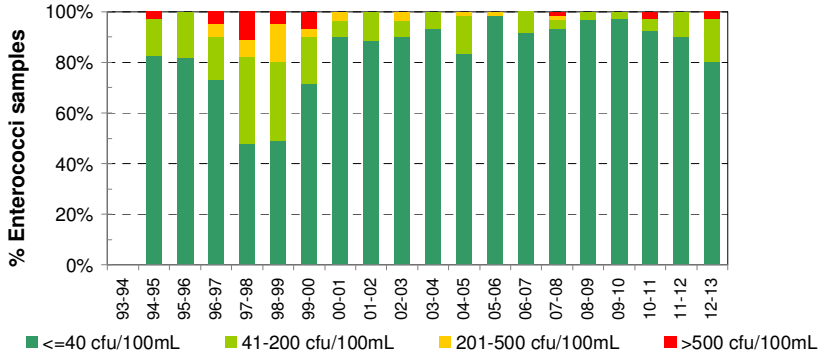


Response to rainfall

Rainfall from Manly rain gauge



Trends in enterococci data through time



Little Manly Cove

Beach Suitability Grade: **Good**

See 'How to read this report' for key to map

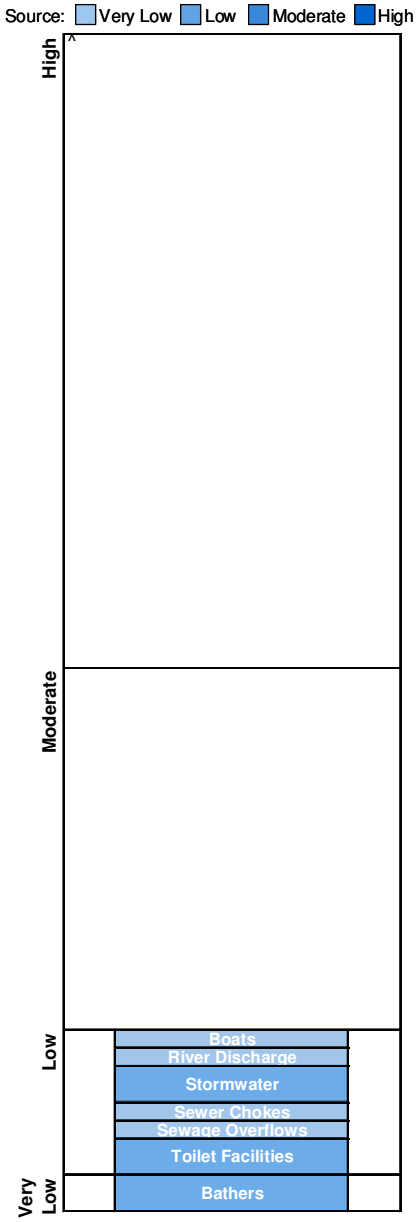
The 30 metre square swimming enclosure is at the eastern end of the beach in Little Manly Cove. The beach is backed by a small reserve. Boat launching facilities are at the western end of the beach.

The Beach Suitability Grade of Good indicates that microbial water quality is suitable for swimming most of the time but the water may be susceptible to pollution from a number of minor sources of faecal contamination.

The response to rainfall graph indicates that enterococci levels generally increased with increasing rainfall, often exceeding the safe swimming limit in response to 10 mm of rainfall or more.

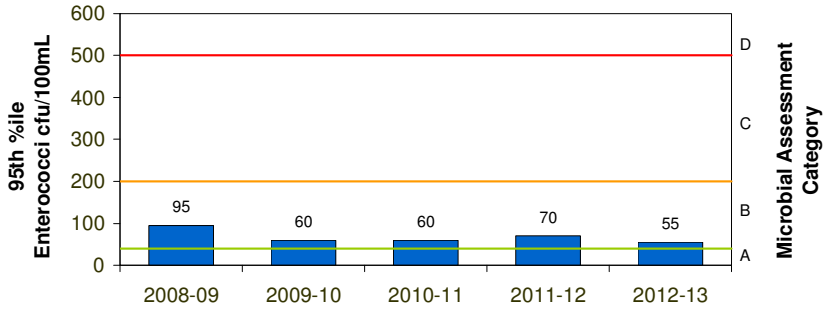
The site has been monitored since 1994. Microbial water quality has improved slightly since 2000–2001 owing to licensing of discharges from the sewerage system and improved management of stormwater.

Sanitary Inspection: **Moderate**



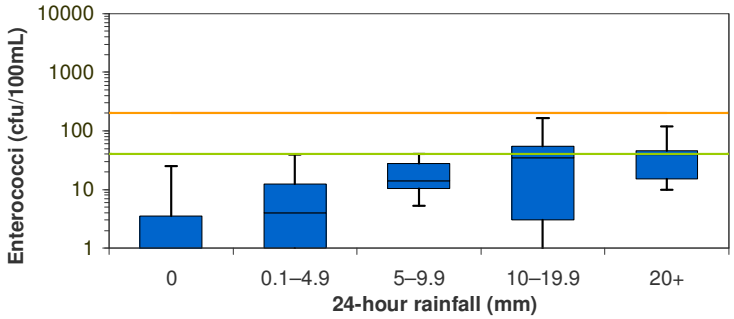
Microbial Assessment: **B**

Monitoring period for 2012–13 result is December 2010 to April 2013.



Response to rainfall

Rainfall from Manly rain gauge



Trends in enterococci data through time